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Vol. 2, No. 1 | CONTENTS | JULY, 1939

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By MANLY WADE WELLMAN

Five Geniuses from the Past Are Summoned Back to Life to Face and Defy the Challenge of the Future, Applying Their Wizardry to Combat the Strangest Menace That Has Ever Gripped the Earth - - - - 13

Other Unusual Stories

ROBOT A-1 - - - - - - - - - - - - - - - - Oscar J. Friend 87
THE WORLD WITHOUT NAME - - - - - - - - - - Edwin K. Sloat 96
THE LIFE BATTERY - - - - - - - - - - - - - - Eando Binder 113

Special Features

GUEST EDITORIAL: See Earth First - - - - - - - - - Willy Ley 13
THEY CHANGED THE WORLD—Leonardo da Vinci - - - Picture-Story 94
THE ETHER VIBRATES - - - - - - - - - - - - - - Letters 106
THRILLS IN SCIENCE—Thumbnail Sketches - - - - Mort Weisinger 109
SCIENCE QUESTION BOX - - - - - - - - - Questions and Answers 119
SCIENTIFIC CROSSWORD PUZZLE - - - - - - - - A Brain-Teaser 120
REVIEW OF SCIENCE FICTION FAN MAGAZINES - - - - The Editor 122
FORECAST FOR THE NEXT ISSUE - - - - - - - - Coming Events 124
MEET THE AUTHOR: A Self-Portrait - - - - Manly Wade Wellman 125

Cover Painting by H. V. Brown — Depicting Scene from ROBOT A-1

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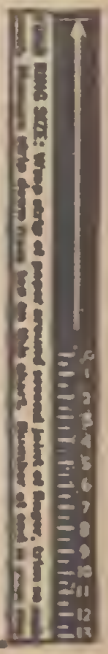

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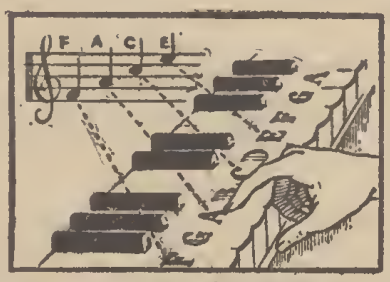

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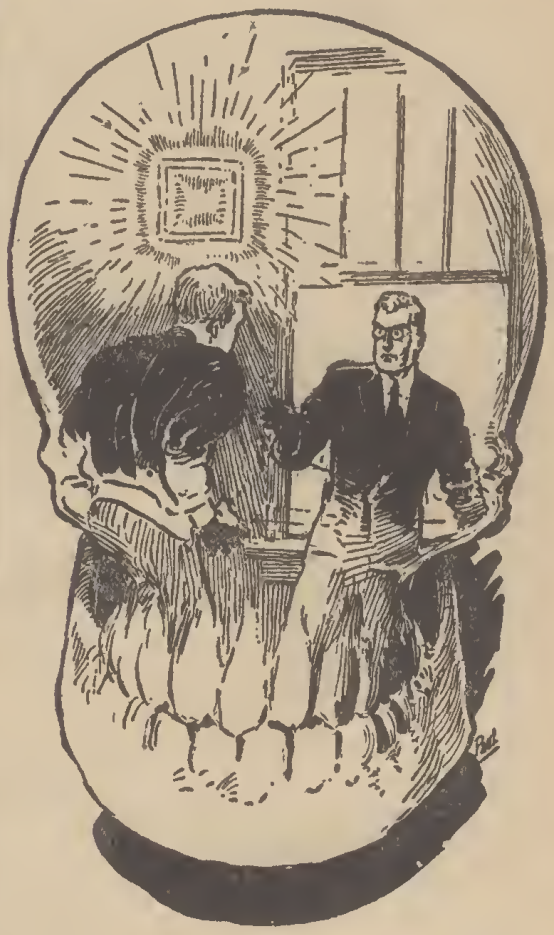

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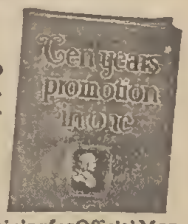

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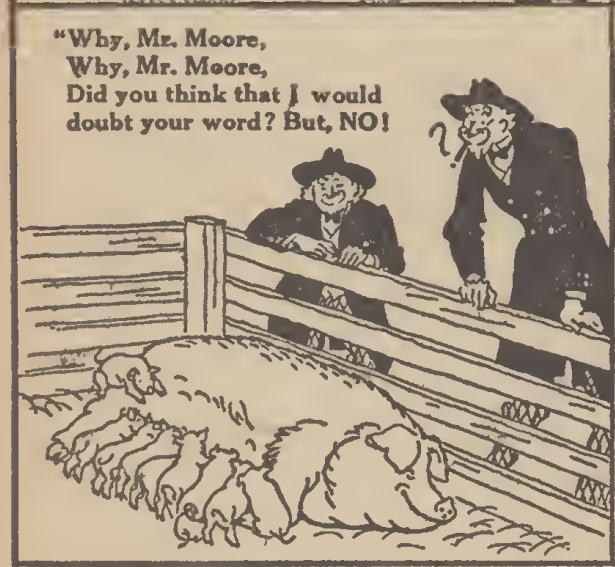

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Vol. 2, No. 1 STARTLING STORIES July, 1939

See Earth First

A Guest Editorial

By WILLY LEY

FAMOUS SCIENTIFIC AUTHORITY

IT is one of the pet beliefs of very many people nowadays that there is nothing left to explore or to discover—excepting, of course, discoveries that can be made in physical and chemical laboratories and those that are in the realm of astronomy. On Earth the job is done. There are certainly no undiscovered continents left, the icy wastes of Antarctica are not worth bothering about and even in Pacific waters there are hardly uncharted islands left, at any event none of any importance or usefulness. Geographically speaking the Earth is known . . . or so they believe.

Willy Ley

Those that hold and voice this belief learn with almost a shock—and with plenty of incredulity—that the surface of the Moon (meaning the four sevenths of it that we can see) is better known than the surface of our own world.

The why is obvious, we see the surface of our satellite from quite a distance and we therefore see it always as a map while even stratosphere balloons do not produce enough elevation to see large portions of the Earth the same way.

We will have to wait for rocket ships circling the Earth outside of the atmosphere to be able to take Earth pictures as we take Moon pictures in our observatories without thinking much of it.

If our map makers did not disguise little or unknown territories as blank spaces but marked them in black ink nobody would be surprised to hear that about one fifth of the land surface of Earth is still unexplored. Half of that lies in Antarctica, but even so the percentage is much higher than one should think after two thousand years of discovery.

On every continent—excepting only Europe—there are vast stretches of land that are either completely unknown or have been traversed only once by weary, worn-out and fever-stricken explorers. We think that most of this unknown territory is nothing but desert but even if we are right we have no assurance that these deserts do not hide important facts it would be interesting and useful to know.

Just recently the unfinished state of the discovery of our own planet has been brought to our attention rather forcibly by a series of surprising reports. A three thousand foot cataract, the highest waterfall in the world, was reported from British Guiana in May, 1938, by Dr. Paul A. Zahl of Schenectady. And nearby Mount Roraima, famous as stage for Sir Arthur Conan Doyle's novel *The Lost World,* was found to be only one of a series of gigantic Mesas no white man had ever seen.

All of which proves that there are discoveries left even outside of those unexplored regions of close to twenty per cent of Earth's land surface. But the land surface of the Earth is only about one quarter of the total surface. The other three quarters is the area occupied by the oceans.

We are now eagerly reaching out for the planets, at present in science fiction and in theory, a few decades hence in actuality. But in the meantime, before we are ready to go out to discover other worlds, we have a job waiting: to finish discovery at home.

GIANTS FROM

By MANLY WADE WELLMAN

Author of "The Robot and the Lady," "Dream-Dust from Mars," etc.

The struggling, pinioned form of coiled with a hundred whiplike

CHAPTER I

The Coming of the Blight

IT was Oliver Noll Norfleet who first said the strange red earth-blight that appeared to flourish in western Kansas was a new form of independent life. That was on the fourth day, after it had spread a mile, and men had learned, by harrowing first-hand

Five Geniuses of the Past Are Summoned

ETERNITY

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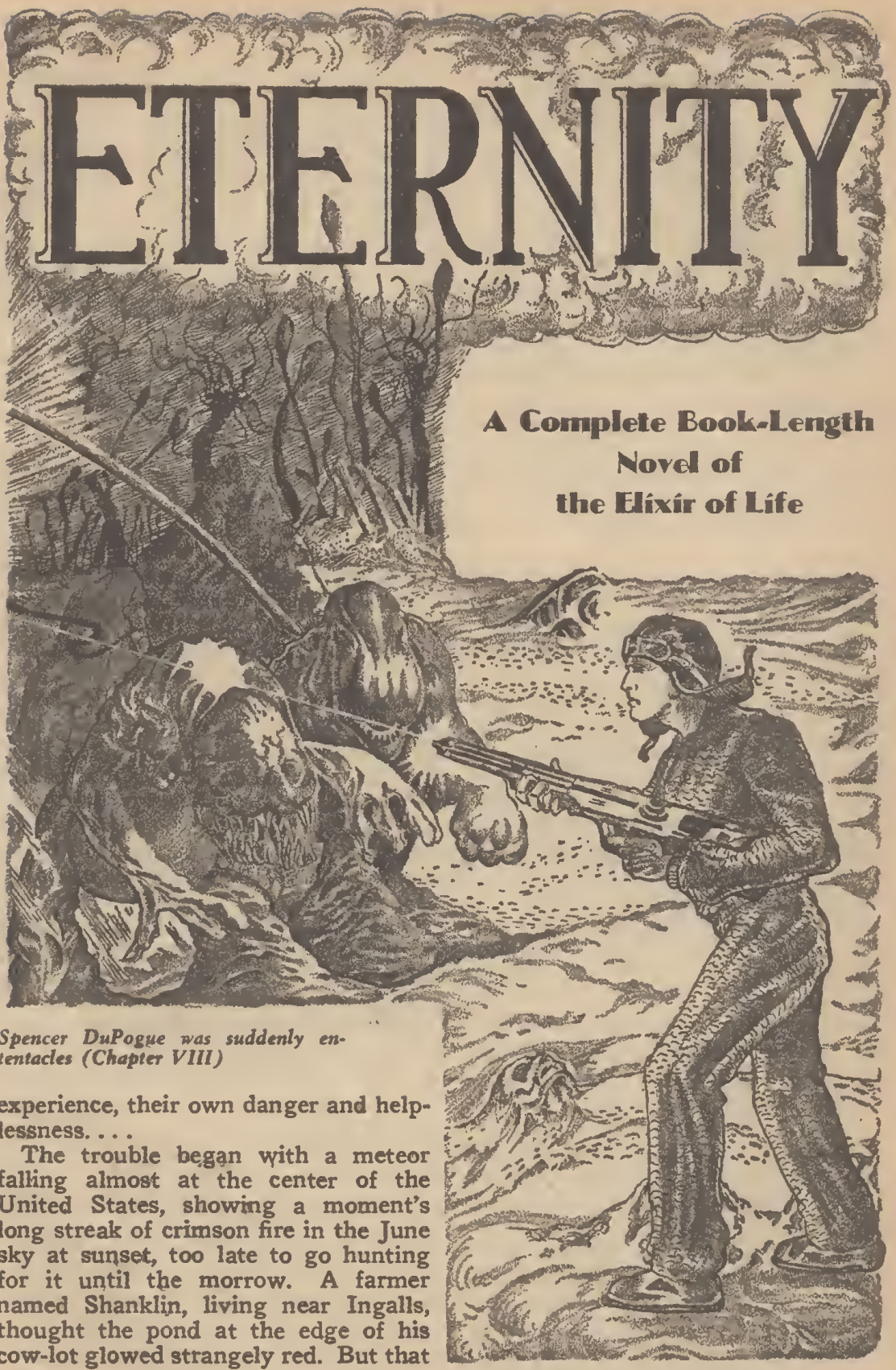

Spencer DuPogue was suddenly en- tentacles (Chapter VIII)

experience, their own danger and helplessness. . . .

The trouble began with a meteor falling almost at the center of the United States, showing a moment's long streak of crimson fire in the June sky at sunset, too late to go hunting for it until the morrow. A farmer named Shanklin, living near Ingalls, thought the pond at the edge of his cow-lot glowed strangely red. But that

to Face and Defy the Future's Challenge!

was probably the last reflection of the sun's rays; nothing to do with the meteor. He did his chores, then tramped into the kitchen and began to read the Farmer's Almanac.

Mrs. Shanklin was slicing potatoes into a skillet. "Listen, Pa," she said suddenly, and the farmer, too, cocked a weather-beaten ear toward the gathering dusk outside the open back door.

"Sounded like a cow bawlin'," he mumbled, and turned to the poultry column.

"She's quit," remarked Mrs. Shanklin, and put the skillet on the stove. The savory crackle of frying possessed the room, and minutes passed. Then: "Listen, Pa!" she said again. "There's the other cow bawlin'."

Shanklin looked up. "Joe! Joe!" he called.

A half-grown lad, sturdy and sun browned, hurried from the front of the house. "What, Pa?"

"Go down to the lot an' see what them cows is fussin' about."

Joe went. Shanklin turned a page of his paper, and sniffed appreciatively the smell of supper. He was hungry. There was no further sound from the outdoors.

More time went by. Mrs. Shanklin was setting the wide old kitchen table. "Ain't Joe got back yet, Pa?"

"No. He's slower'n the seven-year itch." The farmer got to his feet and moved to the door. "Joe!" he called. "Supper!"

No answer.

"Funny, Joe never needs no second call to his vittles," remarked the mother. Shanklin grunted, and walked into the yard.

AT the back stoop he almost stumbled over something—a crouching collie, which trembled and groveled. Its sniffing muzzle fronted the cow pen, and it whimpered to its master.

"What's the trouble, Gruff?" Shanklin said. He, too gazed at the dark fence, barely discernible. He made to walk toward it, then stepped back to the kitchen, caught a lantern from a nail, and lighted it with a safety match.

"What's goin' on, Pa?" his wife inquired uneasily.

But Shanklin was gone down the path to the pen. Gruff, the collie, hung back and had to be whistled to heel.

The bars of the pen were down. Shanklin cursed under his breath at young Joe's negligence, stepped through, held up his lantern— And screamed, a great, roaring, masculine scream of fright.

The floor of the enclosure ran blood. No, it was not blood; it was only black in the lantern-light, like blood. It lay thick as molasses, yet it crept and heaved, as though boiling with an under-fire. Shanklin could hear it. And upon it, within it, lay three half-shapen lumps.

They were what had jerked that scream out of him. The two farthest lay close together, and were big and roundish—the cows that had bawled so briefly, and now lay, overflowed with the thick-wet flood. The nearest lump, the one almost at his feet and just within the edge of the strange layer, was more recognizable still, though Shanklin did not want to recognize it.

A man might look like that if he had slept outdoors and a strange dark snow had fallen, blending him into the field but not quite hiding him—a mound for torso, another smaller blob for head, extensions for outflung legs and arms. Did poor swamped Joe still struggle feebly with what had seized and covered him?

The father rushed at his son, caught at the sticky-swathed shoulder. A moment later agony raced over his arm, and heavy wetness, a whole racing veneer of it—not black, this close to his lantern, but as red as pain, slaughter, cruelty. It possessed his body in almost a trice, like a flash of electricity. He tried to yell again, but he was done for. He fell, and the surface of the blight received him.

"Did you call, Pa?" It was Mrs. Shanklin. Then she, too, saw. But she, being a woman, did not speak or struggle against the invader. She fainted. And the enemy rolled over her within minutes.

It was not until morning that the neighbors discovered this terrible newcomer to earth—the spawn of that meteor which had fallen into Shanklin's pond and then spread itself to swallow his animals, him, and all that was his.

At dawn a great blotch of mussy, angry redness blanketed acres of his farm, like blood on a blotter. A rounded, gnawed-down hillock still showed where the house had been, a smaller and lower one marked the swallowed barn. The sole survivor of the evening's terror was Gruff, the collie, whining and cowering afar.

Meanwhile, the redness was extending itself, swiftly enough to be seen by a watchful eye—inches an hour, even feet. Police were called, and James Hilbein, Gray County's farm agent. They sent rather incoherent telegrams to the state offices at Topeka.

As the day progressed, so did the blight. It overwhelmed a pasture and, before rescue could arrive, half a dozen horses screamed their terrified last as the earth-rash, suddenly swift, leaped and felled and possessed them. Those who watched drew away, shuddering; they knew why none of the Shanklins could be found.

Oliver Norfleet

THAT night a crowd of neighboring farmers kept uneasy vigil around the greatening circle. During the dark hours they kept moving slowly back, back; but there were those who did not move, and tragedy ensued. A young couple had parked their car on a side road, to kiss and cuddle. They did not dream of disaster until, with a rattle like a fusillade, all four tires exploded. Then they looked out.

The ground was dark and shiny all around. A touch of the switch, and their lights gleamed—the blight had spread under and past the car. It had eaten its way through the rubber of the tires, was climbing slowly up the spokes.

"What's coming off here?" demanded the youth, and stepped forth from his side of the car.

His single brief whine of pain, his fall and sudden merging into the deadly surface warned his companion. She stayed where she was, while the blight climbed up to her. As it closed in, she raised her voice—called for help, cried out in deadly terror, and finally burst into crazy laughter, that broke off in the middle. Many of the sentinels heard her, but none had courage to attempt her rescue. None would have been able to reach her.

In the morning of the second day, the affected area was fully a quarter of a mile in diameter. The central lumps of the destroyed Shanklin farm had sunk down, as though digested by the crimson force, and none of the scattered trees could be seen. A few knoll-like hills, however, showed their old shape, though they glowed a raw red instead of bright green. Soil experts had come from the state capital at Topeka, and they consulted town authorities and Farm Agent Hilbein.

It was decided to curb the mystery with a sterile trench, somewhat on the order of a break to baffle a prairie fire. The logic of this procedure has not remained in memory, but there was something to say for it. To be sure, the circular ditch, hastily done with plough and spade in hundreds of hands, did not halt the advance of the red blight; but it hampered it. The speed of the stuff, so noticeable over normal grassy sod, was cut down so that more than two hours were spent in crossing the foot-wide trench.

That gave something of a hint. With the use of sprinkled oil, the green grass was burnt off in a wide stretch around the blighted area, and this cut the speed

down to something like six inches an hour. With this brief flavor of victory, the watchers spent another anxious and mystified night, and in the morning dug another trench.

Their enemy was now almost half a mile across—and they filled that trench with crude oil, which was then set on fire. All watched as the red margin widened, slowly and silently. It reached one segment of the moat, flowed in. Fire, the counter-destroyer, was there to meet it—for the moment, and no more.

The touch of the stuff, dampish as it was, extinguished an inner band of the flame. Beneath, and extending under the rest of the fiery belt, lay a ring of liquid fuel, inches deep. Upon that fuel the red blight fastened and fed. The result was disheartening. The blaze above, starved by this gulping of oil from below, flickered out. The strange growth continued the widening of its circle.

Newspapers and government agencies were by now awake to the menace of this strange infection. A detachment of the national guard was mobilized and set to work as a sentry patrol, though it failed to turn back three curious little children, two girls and a boy, the oldest of them six. Gamboling near the edge, intrigued by the strange, new, bright thing, they were overtaken, as though by a quick clutch of the blight; and they lasted even less time than had the earlier victims.

Brigades of notables hastened to Ingalls, first fascinated, then mystified, finally frightened. Hilbein, the farm agent, pointed out that nothing had inhibited the growth and motion of the blight, nothing had even hampered it for more than a little. At what point, then, would the growth ever cease?

Everybody echoed that question, and nobody could answer it.

CHAPTER II

Three Against the Menace

OLIVER NORFLEET was interested enough in the news about the blight to come to Ingalls from his work at Kansas City—and that was something, for he loved his work.

Science was his god, his dream, his life and hope. He had been a scientist from birth, perhaps before. The elder Norfleet, now dead, had been the sixth generation of a family of country doctors, ill-paid and eager-serving men who had lived hard and died unknown, with only their obscure communities to remember and thank them, if at all.

This doctor had thought to rear his son to a like service and study and, thus inspired and taught, young Oliver Norfleet had known textbooks and scientific terms almost from babyhood. He had played with aquariums and microscopes instead of tops and marbles. He had early tampered, then labored honestly and in orderly fashion, with physics and chemistry.

At high school he got his first taste of formal education, and won a scholarship that gave him four years of advanced science at Missouri University. On graduation, a small midwestern college offered him a place as instructor in general science, but the death of his father brought him a small legacy. With DuPogue, he turned to what he had often dreamed of—independent research, in a private laboratory.

His natural gifts were considerable, and his lifelong study gave him the accuracy, knowledge and polish of the true experimenter. Nor did he ever lose that first flush of enthusiasm, that so often dies when the amateur becomes the professional. In short, he was an exception, one of perhaps five thousand young exceptions in each generation whose names may never be heard, unless the need of them arises, as the need had now arisen for Oliver Norfleet.

He yearned, though he dared not hope, to learn some day the inner mechanism of life, the power that shut it on and off. But, with so little done on the subject, he had only inspirations to guide him. But, somehow, inspirations seemed enough.

When he came to Ingalls on the fourth day, the blight had obliterated all that was familiar of the Shanklin farm and had crossed into others. Fire had failed to stop it; so had a subsequent circle of water. A fence of tight-

calked boards had next been erected, but the devouring of this had speeded, rather than delayed the expansion. Now the growing crowd of visiting experts and scientists conferred in the morning sunshine over the probable merits of iron, concrete, and glass as successful barricades. Throngs of curious, furtive people stared from a little distance at the hummocky, muddy redness, more than half a mile of it, with a pinkish haze at the center.

Norfleet got out of his old car and came close to the margin, so close that the scuffed toes of his shoes paused within six inches of it. No other man dared approach so close, but Norfleet had already computed the advance of the blight over fire-sterilized earth at approximately six inches an hour. He had almost sixty minutes of safety.

He was a quiet, compact young man of average height and build, with a slight wave at the forepart of his buff-colored hair. His straight nose had a slight football dint, and there was a dimple-like scar at the point of his square chin. His mouth, usually ready to smile, held itself straight and sober. His best features were the steady gray eyes, as clear and bright as a drop of mercury. He wore the shabbily decent clothes of a well bred man whose income is small. He looked a good ten years older than his age, which had been twenty-five the previous January.

THE mystery which stirred and crept at his feet, like some sort of sluggish infernal tide, looked like nothing so much as lava mud with a red glow of heat, yet it did not increase the temperature. Soft-seeming and porridgy, it had an apparent rhythm or pulse to its stirring.

Thus, near the edge it was dark and dull, full of muddy grains, as though it were digesting the earth; but when he lifted his eyes, the more distant reaches toward the center grew progressively brighter, redder, more sore-looking. Norfleet's eyes moved back and forth across the lurid area, like searchlights on a strange harbor.

Finally he dug into a coat pocket and brought out a little paper parcel—a sandwich, the remains of his lunch bought at a roadside stand. He unwrapped it, placed the morsel of bread and meat at the very rim of the blight. A tongue of redness immediately shot out, spread and engulfed the mouthful within seconds.

Spencer DuPogue

Norfleet's eyes narrowed, as though they caught and held for future reference the implication of what he had seen. The tissue paper was next laid on the ground, one corner within the red mush. Again there was a speeding of the devouring motion, though not so great a speed as over the sandwich; Norfleet had time to check the speed of destruction by the second hand of his wrist watch. His eye dropped to earth again, and with a quick gasp he sprang back.

From the curve of the circumference a tendril of blight had been creeping out, snakelike, toward the toe of his foot, the toe that Norfleet had thought safe for an hour. He shuddered with an involuntary revulsion, and hurried back to his little faded automobile, where lounged his friend and co-experimenter.

Spencer DuPogue was tall, thin and flat-bodied, with high shoulders and natty summer clothes. His eyes, too, were bright, as were the teeth exposed by a short, neat-moustached lip. He

was a year older than Norfleet, and at college they had been room-mates and co-winners of the science prize.

"The stuff's alive," said Norfleet.

"Nonsense," replied DuPogue, but he gazed interestedly at the red area.

"It's alive," said Norfleet again. "It grows, eats—converts every solid thing into its own tissue. It thrives best on organic matter, oil, wood, flesh—"

"So does fire," reminded DuPogue.

"But this stuff knew I was close at hand; it tried to jump at me."

"That's interesting!"

The last was a new voice, a fresh feminine voice. Both young men looked up. At the other side of the car approached slim shoulders and a lively, rosy face with wide eyes, snub nose and bushy-curly black hair. Norfleet stared in surprise, DuPogue in admiration.

"I'm Caris Bridge," the newcomer introduced herself. "Out here to study this nasty little visitor to our planet, but a bit scared and mystified." She lifted those slim shoulders. "I hate mysteries, don't you?"

"I hate anything you hate, lady," pronounced DuPogue gallantly, but Caris Bridge only smiled briefly and addressed Norfleet.

"You had spunk enough to go close. Nobody else does, since all those victims were reported. But you're no fool, either. You did some experiments, didn't you?"

"Rough ones," said Norfleet modestly, and told about the sandwich, the tissue paper, and his own narrow escape.

"Want a job?" asked the girl.

BOTH faces lighted up at the question. There was nothing that Oliver Norfleet and Spencer DuPogue wanted or needed more.

"Good. You've got one. I'm from the Board of Science."

Norfleet and DuPogue stared. The girl apparently thought they did not comprehend.

"Maybe you haven't heard of the Board," she went on. "It's only a year old, but it has the finest scientific minds of all America, with associates in every civilized country. It works with, and is able to help, the Rockefellers, Nobels, Guggenheims—"

"We know about the Board of Science," said DuPogue a little sharply, nettled that his awareness of great things was being challenged.

"What did you say your name was?" demanded Norfleet suddenly.

"Caris Bridge," she said again, "and apparently you've guessed it, Mr. Norfleet; I'm the daughter of Dr. York Bridge the executive director of the Board. Naturally this blight has attracted the Board's attention. They rushed me out here by plane—my father trusts me and my judgment—with a mission and a drawing account. I'm to establish an observation laboratory, pick a likely young enthusiast or two for associates—"

"Wait, wait," interrupted Norfleet, more rudely than was his wont. "Spence and I are broke and eager and scientific. We've got an old house in Kansas City, with a laboratory in the cellar, and we've been studying biochemistry—"

"I know something about you, too," Caris Bridge interrupted in turn. "You got a prize at Northwestern, didn't you? Something about genes? I thought so. Well, I think the Board will okay your record, Mr. Norfleet. I've listened to you for only five minutes, but I'm sick of these farm agents, high school professors, and politically minded medicos. Now as to salary; how about—"

"Splendid!" cried DuPogue, making it a round robin of interruptions. "Now we're at work, to blight the blight."

The three went back to Ingalls, where Caris Bridge sent a rush telegram to New York. Awaiting an answer, they sat over coffee at a little lunch counter and talked.

"The way the stuff put out its tongue at you doesn't necessarily prove intelligence," DuPogue offered. "A plant will turn itself in the direction of light or water, even toward a stick it wants to climb."

"I wasn't claiming intelligence for the blight, but life," reminded Norfleet. "Adaptability shows life, here as in all other things."

"You're right," admitted DuPogue. He had a way of admitting his mistakes handsomely. He could afford to;

he made very few mistakes, at least in science.

The answering telegram arrived, empowering Caris Bridge to put Norfleet and DuPogue to work on probation, as independent researchers. She was also advised to remain with them as assistant and liaison officer between them and Board headquarters. They were to be one of a number of investigating units who would study the blight and seek to destroy it.

CHAPTER III

Norfleet's Scouting Venture

IT was then that Norfleet unassumingly took charge. DuPogue left at once for Kansas City in the little car, a check from Caris Bridge in his pocket to augment the equipment and supplies from their little laboratory.

Norfleet made full notes of all his findings, using paper napkins from a sheaf on the lunch counter. Then he went back with the girl to the scene of the blight. There he sought all observers, scientific and otherwise, for questioning.

His questions were few but penetrating. One or two things had been partially established concerning the red blight, and these bore out his theories. It devoured and digested all matter, but some things went more easily than others. Glass was somewhat of an impediment to its progress, and certain corrosive acids even more so, though neither was really a barrier. The growth was very fast among organic substances, dead or alive; grass went swiftly in its maw, as did rich loam; sand, gravel and clay, less readily.

As for animal life, Norfleet conducted more experiments. For two dollars he hired a farm hand to go out and shoot five Kansas jackrabbits. The carcasses Norfleet put at intervals along the rim of red, well separated but all within sight. As the blight crept forward, it came upon the five lumps of flesh in almost the same instant. Immediately there was a fivefold leaping forward, a triumphant overflow and possession—then only five projections, like pseudopods, thrusting forth.

"It happened in less than ten seconds," Caris Bridge remarked gloomily. "Meat is what it wants most, and eats quickest."

Norfleet's quicksilver eyes narrowed in his characteristic expression of serious thought. Soon the blight would fall upon and involve the town of Ingalls. What if it came on at night, and caught the townsfolk in their beds? It was an unpleasant visualization.

After that, if it continued to grow and expand unchecked, it would eat up all of Kansas, he figured, in three months. Eastward to the Mississippi and westward to the Rockies in six. Later— More pictures danced before his mind's eye, but he blotted them away.

"Miss Bridge," he said, "I'm hunting for a hardware store. Wait here."

He trotted away, and returned with pocketfuls of odds and ends. For an hour he made gingerly observations at the rim of the red pool, with first one item, then another. Caris Bridge helped him make notes.

"Glass is a deterrent, and so is corrosive acid," he thought aloud, "but they won't do. Something flexible, now—" And he trailed off.

"Your rag of asbestos has stood the stuff off," pointed out Caris. "It's flexible. But what are you getting at?"

"That's it! I want to go into the area," he replied. She started to exclaim in horror, but he put up a hand to forestall her. "Don't tell me it can't be done. First of all, I want to buy some high boots. Duck-hunting waders will do."

AT Ingalls they found the wanted boots in the possession of the town marshal, who gladly sold them second hand. Norfleet then bought several more yards of thick asbestos fabric at the hardware store. Finally, he spread out his purchases on the floor of Caris Bridge's room.

"Can you help me line the outsides of the boots with this stuff?" he asked.

"What about thread?" she demanded promptly. "Cotton, wool, silk, or linen —it's all organic. The blight would gobble up the stitches and your asbestos would fall away."

He produced another little package. "Glassoid cement," he explained. "Heat it up, like solder, and it will adhere and close the seams."

They sat up until nearly midnight preparing the boots. The fittings were clumsy but stout, and finally Norfleet tried them on. Though roomy, they armored him to the hip in asbestos.

"Blight-proof?" asked Caris Bridge.

He shook his head. "Only hard for the blight to chew. We'll try them in the morning."

"I think you're a fool," she said flatly, her big dark eyes full of concern. "Good night, then."

At dawn they met once more, had a quick breakfast of coffee and rolls, then hurried to the margin of the blight. The newly risen sun was bright and hot, and Norfleet could plainly see, as yesterday, the dark redness of the outer zone, the contrasting full scarlet of the inner, and the pink haze at center. Only the guards around the growing blight were out so early in the morning.

"Sure you know what you're doing?" Caris Bridge asked anxiously once more.

"I do," said Oliver Norfleet, drawing on a boot. "Stop bothering."

"But if things go wrong?"

"Get in touch with your Board of Science and say there's a vacancy out here."

He donned the other boot, fastened the upper straps to his waist belt, and took in hand a glass pole that had done duty in an Ingalls department store as curtain rack. It was five feet long and an inch thick.

"Good-bye, Caris," he said. "I'll be back in a jiffy."

She said something like "I wonder," as he walked away.

Approaching the margin, he thrust the tip of his staff into muck the color of stale blood. It yielded damply, yet seemed to have consistency enough to bear his weight. He stepped forward.

Beneath the asbestos sole of his foot the red tissue yielded like mire, but he did not sink over his instep. Another pace, carefully, for the footing was slippery, as though with an underlayer of slime, and he dared not fall. His staff prodded the blight-surface further in. Again he took a step.

Behind he heard voices, chattering excitedly. Caris Bridge was joining in, as though to explain what he, Norfleet was about. He did not look back. This was no time for that. He walked slowly but steadily forward.

THE texture of the surface changed, and the color. It seemed firmer as he moved centerward, with no granular appearance. The red became lighter now, still comparable to blood, but fresh blood. There was motion, too; not the flabby twitching of quicksand nor the bubble of hot porridge, but a slow, all-involving ripple and pulse, moving outward from the center as though impelled by a rhythmic heart. Norfleet conquered his caution. He moved faster still exploring ahead with the point of the glass rod in the direction of the center.

The center! He was almost there. He must have moved more swiftly than he had thought, that quarter-mile of radius. He stole a glance back. A quarter-mile? It seemed more. Perhaps the redness had spread farther since he had crossed its margin. No time, though, for idle fancies. He was here to study.

Within a sharp line of cleavage, a circular area of some ten feet glowed with a radiant rosiness, like heated iron. It was this glow that looked afar like a pink mist. Norfleet could almost swear to an inner light. This had been the farmyard of the Shanklin home, now leveled by the strange blight like a dance floor, save for the lump at the very center about the size of a big melon.

"The meteorite," said Norfleet to himself, and undoubtedly it was, or some part of it. The strange light was strongest within it, as though striking from the core of a pale ruby.

Some instinct within Norfleet's heart forbade him to step into this ultimate circle. He set his foot—red-stained by now with the hungry blight that struggled to pierce the resistant asbestos—at the very rim. Leaning as far inward as he dared, he extended his staff of glass in his left hand. Its point gently probed the jewel-like nucleus of the red menace.

Something seemed to twang or hum, or perhaps only a nervous shock sprang

along his arm to the very marrow of his brain. Redness ran like a flare up the glass rod, a bright crimson streak from the nucleus. It was like the spring of an angry beast, the flash of a shooting star. Norfleet let go the other end of the rod, none too soon—indeed, not soon enough.

FOR a drop or spark of the glowing assault had touched the tip of his left forefinger. It burned, throbbed, agonized. Norfleet, staggering back, almost fell with the weight of pain, yet he knew what he must do instantly.

Caris Bridge

His other hand snatched a knife from his pocket; he tore it open with his teeth. A single drawing cut with the keen blade, and the first joint of his forefinger flew clear. The severed end bled and, still retreating from the threat of that gleaming nucleus, he knotted his handkerchief around the knuckle and twisted it into a tourniquet with the handle of the knife. At least, he had maimed himself in time; no deeper glow of blight mingled with the normal red of his blood.

He turned and ran. Twice he almost fell, and half a dozen times his asbestos soles skidded or wabbled. The safety of uninfected earth which he had quitted so shortly before now seemed to draw hours away. He was aware of a growing crowd that watched, helplessly, his retreat.

One fool was coming to meet him—no, the figure stopped at the margin. Caris Bridge! She waved a great rectangle, a slab of corrugated iron, which she flung down for him to stand on. He gained it. Her black eyes were bigger than ever. He began to unfasten his boots, stained over with blight.

"What's that?" she was demanding, and pointed to his knee.

A cherry glow clung there, like a piece of the nucleus itself—a lump the size and shape of a finger-tip, nail and all. Norfleet laughed ruefully.

"It used to be a hunk of me, but take care. It's covered with the pure heart of the blight."

"Wait." From her handbag she fumbled a squat glass phial, and into this coaxed the specimen. She stoppered it tightly with a porcelain plug, then helped him strip off his half-eaten boots and cast them into the red mire. They walked away together over the safe, fire-singed earth.

"You had nerve and presence of mind to chop off that finger-tip," Caris was saying. "Thank God, you got away."

"Yes, for the time being," and Norfleet glared back at the trap that he had foiled. He folded his penknife. "But where will this ruin stop?"

CHAPTER IV

The Life Bringer

THEY flew back to Kansas City, arriving at noon. DuPogue met them at the airport and took them out to the large old house on the edge of town, which he and Norfleet rented together. He was moving new laboratory equipment into the cellar, and Caris Bridge and Norfleet helped. Finally they sat down in the laboratory, cement - walled and crammed with benches, shelves, and apparatus.

"What first?" inquired DuPogue.

"This," replied Caris Bridge at once, and produced a sealed glass bottle, full

within of glowing radiance.

DuPogue stared interestedly. Norfleet cried out in recognition and put out his unwounded hand.

"It's the blight, the chunk that bit my finger. Did we get that much?"

"Not to begin with," was the girl's answer. "But it ate the first little two-ounce phial in about thirty minutes. I put it in a bigger phial, and that into a bigger one, and that one still bigger, and so on. Now there's almost a pint of it. It's eaten through a good half-inch of glass since morning."

"That's slow compared to how it gulps down some compounds," remarked Norfleet, studying the specimen. "Notice, Spence, how dark the surface is. But the center glows through—a little morsel of the nucleus itself."

"The meteor would have been tough to meet alone, before it spread out and diluted itself," replied DuPogue, bending over the bottle. "Probably the pure blight-stuff is the worst poison that ever existed."

"It's life," modified Norfleet. "Anarchic life, running loose and fierce and without law or rule or plan, except to kill and eat and grow." He turned to Caris. "There's something to report to your Board."

She was peering at a small glass dish, filled with liquid and holding at its bottom a trifle of pulpy greenness. "This looks interesting," she said. "What is it?"

"Dead protozoan culture," replied DuPogue. "Part of the pottering of our friend Noll here," and he grinned somewhat condescendingly at Norfleet. "He raised a whole community to teeming pitch, then boiled them out. He hopes to see if they will come back to life under his magic touch."

"Some day they will," added Norfleet confidently. "Those, or others like them. I haven't the right procedure yet, but the head of the department of bio-chemistry at the University—"

"Let me have a knife or something," requested Caris, and Norfleet offered her the pearl-handled penknife with which he had amputated his fingertip. Opening it, Caris took a tiny dab of the culture on its tip. Then she fished a slide from a jar of sterile liquid, put her specimen upon it, and edged the whole under a microscope.

DUPOGUE hurried gallantly to turn on a light for her. "How do the little corpses look?" he inquired.

"Very dead, indeed," replied Caris, squinting into the eyepiece. "Quite solemn and dignified—hold on, these aren't dead, after all!"

"What?" demanded Norfleet, almost springing toward her.

"Not dead, I say. A vorticella's twitching—now it's swinging like a pump-handle. And an amoeba's waking up—crawling."

"You're not quite lethal enough with your specimens, Noll, old man," DuPogue commented.

"May I look?" Norfleet took Caris' place at the microscope. His young face grew long and abashed as he studied. "They're alive and healthy, all right."

"It looks like an old settler's picnic," laughed DuPogue, taking his turn at the eyepiece. "You must have given 'em a tonic instead of a death drink."

But his old schoolmate scowled in fixed thought. His forefinger rubbed the side of his dented nose. "They were dead two days ago, even beginning to desiccate," he muttered. A moment later he was setting up a microscope of his own, and with a wire loop loading another slide from the culture. This new sample he examined carefully.

"Come and peek at this before you laugh yourself any sicker," he invited DuPogue. "They're as dead as Adam's ox."

And they were. The three young faces took on almost identical expressions of blank amazement.

"But," protested Caris, "I got my dab from the same culture, in exactly the same way—"

"No you didn't," broke in Norfleet; "not the same way at all." He held out his hand. "Let me have my penknife back."

He used it to secure a third blob of the green slime, and magnified it in turn. "By heaven, this bunch is coming to life, too," he exclaimed after a moment. "I can see them wake up." He turned to the others, gesturing excitedly with his bandaged left hand.

Sir Isaac Newton was a colorful figure in plum-colored coat and lace jabot (Chapter VII)

"Spence, Caris, get other slides ready. First one the way I did it, next—"

"How can you be sure these are the same organisms?" demanded DuPogue, as he went to work with a scalpel. "It may be accidental substitution."

"I can't be sure until I've finished my examination," replied Norfleet, back at his microscope, "but, if they're different organisms, they seem to be identical with those that died."

"Identical?" DuPogue straightened up, shocked. "There's no such thing as identity in nature. Even twins have different fingerprints."

"Hold on," smiled his partner. "The science of fingerprinting isn't more than a century old or so, and nature's timeless. According to the circle-of-zero theory—"

"Zero is right," muttered DuPogue, dabbing a fleck of matter on a clean slide.

NORFLEET refused to accept the slur. "The theory is toyed with by better minds than ours; all things can repeat, if given time and space enough. Far from there being no such thing as identity, there's no such thing as individuality. Maybe we're stumbling into the short-cut."

"I suppose," challenged DuPogue cunningly, "that somewhere there's an exact duplicate of yourself?"

"It's possible. Another Norfleet, another DuPogue—"

"If so, that Spence is still telling that Noll what a daffy egg he is."

"Just what I'd expect from any Spencer DuPogue!" chimed in Caris Bridge hotly. It was her first real choice of sides in the constant bickering, and both young men laughed.

"Take it easy, Caris," pleaded Norfleet. "Spence and I have scrapped since we were freshmen. He invariably takes the other side of whatever question—"

"Because your side's invariably distorted," added DuPogue. "What else can I do?"

"You can work more and talk less," Caris Bridge told him, still only half gracious in her manner.

It was midnight before the three had time to discuss in full their findings. Wearily they studied notes of a simple, yet baffling series of microscopic studies—the same microscopes, the same supply of dead-boiled protozoa, the same batch of slides from the same sterile container. Of the one hundred specimens fifty were undeniably dead, fifty undeniably alive. The fifty dead were on slides loaded with scalpels or looped wires from the laboratory. The fifty living had experienced only the touch of Oliver Norfleet's penknife. How had this endowed the inanimate cells with —life?

The mysterious instrument lay now in the unwounded right hand of Norfleet, as the three stood together under the brightest light of the cellar, their elbows on a long bench littered with slides, beakers, sheafs of notes and other experimental paraphernalia.

"Caris," said Norfleet, "do you remember what happened just this morning? You and I at Ingalls, and this knife?"

Her eyes sought his bandaged left forefinger. "You cut the blight away with it," she replied at once.

Norfleet nodded. "A piece of the very nucleus of that blighted ground. A piece of concentrated life-power."

"But that life-power is a killer," interposed DuPogue. "It eats things; it doesn't restore them."

"I didn't touch the blight itself," Norfleet reminded him. "I took the finger off at the joint, where it wasn't yet infected. Does this add up in your two minds?"

"Not quite," confessed Caris.

"I think I begin to get it," said DuPogue slowly.

Norfleet lifted the knife. "Metal, like this, partially resists and modifies the blight. Flesh, such as was being attacked, receives and increases it. Each substance changes it."

"This all applies to the nucleus," elaborated DuPogue, "and there's a bit of it in the bottle yonder."

Norfleet put the knife away.

"I think," and he smiled at DuPogue as he spoke, "that my experimenting days are nearly over. The life force is here, to be modified out of the purest form of the blight and given a specific job to do. We can restore the dead—"

"Let's get some sleep first," yawned DuPogue.

The man who had discovered this secret of life stared back at him thoughtfully.

CHAPTER V

The First Triumph

MUCH later again the three stood close together at the biggest bench in the cellar laboratory, Norfleet weary but intent, Caris nervous, and DuPogue characteristically assured and jaunty. Norfleet, in the middle of the group, carefully set down a glass beaker with, in the bottom, a small quantity of gray ashes, hardly more than a dab. Over the top of the vessel he fitted a tight cover of sheet rubber.

Caris was writing a report to the Board of Science:

"We have demonstrated," she quickly set down, "that the blight can be inhibited, if not killed, by extreme and prolonged heat. However, the possibilities of building a fire large and lasting enough—" Her hand shook as she hurried the pen along.

"Take it easy, Caris," DuPogue rallied her, caressing his moustache. "This is only the ashes of a little white mouse we're working on."

"I know," and her fluffy black head bowed a trifle, "but he was so cute—with pink eyes and a wiggly nose—and he squeaked so when Noll cut into him—"

"I thought you were a big, brave she-scientist!" DuPogue laughed.

Norfleet was more kindly. "I didn't like to hurt the poor little thing, either," he admitted, "but it had to be done. First a fleck of the nucleus specimen, and then we cut it away and drained off what looks like a real serum." He laid a needle syringe beside the beaker. "Then we put him out of pain and burned him. Poor mousey is a martyr, but only temporarily."

"You hope," DuPogue added.

Norfleet nodded in concession of the chance-element. "Ready to take notes, Caris?" he asked. "All right. Here we have the ashes of a mouse's body, in an airtight container. Here, too, the modified serum of the blight-substance, a small amount and volatile, but apparently the principle with which we restored, by accident, those protozoa."

"I've got it all down," said Caris scribbling.

"And we introduce the serum to the ashes—so." Norfleet pricked the needle-point of the syringe through the rubber cover, and carefully expelled a transparent pink drop, that plopped down upon the ashes below. Another drop, and a third tiny one. They seemed to evaporate at once, into a hazy pink gas.

All three bent to watch.

"Looks like a ghost of a Bacardi cocktail," commented DuPogue. "What about all the stuff you've burned off from the mouse's tissues? The carbon, oxygen, hydrogen, nitrogen?"

"Those things are in the atmosphere," replied Caris.

"But you can't let it in," reminded DuPogue. "The life-stuff will fade out if you uncover the ashes. Remember those water-beetles you muffed yesterday, Noll?"

"I remember perfectly, and I won't muff this try," said Norfleet.

HE had taken a glass air-pump, also fitted with a needle at its nozzle, and thrusting it carefully through the rubber covering, began to work the plunger swiftly. All was pink and a trifle hard to see inside the beaker.

"There's a leak somewhere," said DuPogue at once. "You aren't concentrating air there, or the rubber would bulge."

"There's no leak," Norfleet almost snapped at him. "The air's being drawn into the tissue of the mouse."

"Maybe," said DuPogue tersely.

"Why do you have to belittle all the time?" demanded the girl. "Don't you want to help cure this blight?"

"Nothing I want more, Caris," said DuPogue, shrugging his shoulders as if to let her reproach slide off. "But how a lot of hocus-pocus about restoring life—"

"You never thought Noll could do it," she taunted him. "Now you're jealous because he's succeeding."

"Wait until he succeeds with something more than beetles," retorted DuPogue, warming up at last.

"Wait no longer," Norfleet told him

in excitement. "While you two were squaring off at each other—look!"

He held up the beaker, detaching both syringe and air-pump. Inside, leaping vainly against the rubber cover, was a lively white mouse.

"You did it!" cried Caris, joyfully. "And look—even the cut in his side is cured!"

DuPogue squinted at the little creature. "Noll," he said, "I almost suspect you of a fast one. Sure you didn't sneak that specimen in while Caris and I were debating?"

"Of course, Spence," laughed Norfleet. "I expect to defeat the blight and win the Nobel Prize by sheer sleight-of-hand."

"Which reminds me, I've got a bit of magic of my own to do," said DuPogue. "May I have the laboratory for just a few minutes? Go upstairs to play with your mouse, and call me when you're ready to give life back to a human being."

Norfleet and Caris went up the stairs.

"Don't get mad at Spence," begged the young man. "He likes to clown."

"I suppose so." Caris was holding the restored mouse in her palm, cuddling it against her cheek. "And now, I'd better finish my amazing report and get it into the mail."

She sat at a desk in the parlor, and again took her fountain pen in hand. In conclusion, she added:

I heartily endorse Oliver Norfleet for continuation of this assignment. He is a tireless, intelligent and enterprising worker. His colleague, Spencer DuPogue, is full of energy; yet he may prove difficult.

AT the time that Caris Bridge was leaving the house to mail her report, the man whose independent researches she was inclined to distrust was busy in the laboratory.

Before him on the work-bench stood the thick glass jug in which was sealed the lump of blight-matter. It was smaller than it had been, for whole rinds of it had been seared away by cleverly contrived heat blasts. On such a blast apparatus Spencer DuPogue was now exerting his ingenuity.

DuPogue felt, perhaps with reason, that Norfleet was forgetting his assigned task. Poor old visionary Noll Norfleet—all his life he'd chased that fantastic idea of knowing and governing life, even giving it back where it had been lost. And these strange, newly discovered properties of the blight had completely driven from Norfleet's mind the memory that here was, in its primary form, an enemy to conquer.

Well, he, DuPogue would do something about it. If fire wasn't hot enough to kill the plague, fire would be made hot enough. His heat-concentrator was larger than the small atomizer-type devices that had hitherto been employed. This had a bronze nozzle full three feet long, lined inside with almost unmeltable alloys, and it was mounted on a supporting carriage like a little cannon.

The rear end was not attached to any electrical coil or other familiar heating unit, but bore a cunningly made case with a plating of black steel, round and sturdy, and about the size of a tea-kettle. It had dial gauges, switches, and a thermometer set into the metal. A gentle whir resounded from its inner mechanism.

It was, in short, a new atomic motor and furnace, DuPogue's own laborious creation. He meant now to generate a heat-blast exceeding all others in effective temperature. For a moment his conscience prodded him. Was he being disloyal to Norfleet? Yet, on the other hand, hadn't they been employed by the Board to work to the full extent of their energies and capabilities?

He gingerly turned the dials, listening to the increased whir, watching the temperature mount on the thermometer. He knew very little about this machine he had just evolved. If it succeeded, Norfleet would not blame him, or try to steal his thunder. Good old pottering Noll. . . .

A knock at the door of the cellar. Then, as though invoked by DuPogue's musings, the voice of Norfleet:

"Let me in, Spence."

"One moment, Noll." DuPogue felt a trifle guilty. He wanted his heat machine to remain a secret yet a little while—he had better put it away at once. His hands approached the atomic motor at the breech, drew quickly back. It was piping hot, the mechanism was still working.

"Open up, will you?" called Norfleet again.

DuPogue, face still toward the door, fumbled nervously to dismantle the apparatus. He twisted the dial the wrong way—too far.

Norfleet, outside, heard a sudden whirring that rose to a metallic howl. DuPogue cried out in alarm. Then a great flashing burst of light, a foundation-shaking explosion. The door shattered in Norfleet's face.

He staggered under the rain of flying shreds of wood, but those same shreds had saved him. He shook his tousled head to clear it, and crossed the threshold that had no door any more.

A machine stood wrecked, its motor blown almost to pieces by the sudden pressure. No blaze, no damage except to the door—and that thing on the floor.

BROKEN, charred, grotesque—was it a human form or a dummy? Norfleet's gray eyes stared and wavered. Then his scarred chin set. That must have been DuPogue, just a moment ago, asking him to wait.

Norfleet stood still and thought, for a long, long moment. Then he came all the way into the laboratory. He was telling himself to be calm, careful, a scientist. First he switched on the strongest of the overhead lights. Kneeling, he examined the silent, grisly wreckage. Then he dragged aside the dismantled machine. Finally, he turned to the storage shelves at the other end of the cellar, began dragging certain things from them. His face was set, yet purposeful.

When Caris returned from her walk to the mailbox, she found Norfleet busy at a task that resembled coffin-making. Over the scorched horror on the cement floor, he was clamping big sheets of glass into a box, like an inverted aquarium.

"Don't look too closely," he bade her as she appeared.

Quickly he told her what had happened. When he was through, she gazed toward the bench. There lay an aluminum compression cylinder, the size of a two-quart bottle, with figures scrawled upon it in pink chalk.

"I know what you're going to do," she said suddenly.

Norfleet was sealing the joints of the glass box tight with a handful of putty.

"I've already begun to do it," he made short reply. "I'm going to bring him back to life!"

"But can you?" she stammered. "Dare you?"

He said nothing, but turned and dragged forward yet another instrument, with a switch cord to attach to an electric socket. It was a compact air-compressor. Its nozzle he puttied into a chink at one upper corner of the glass coffin.

"Turn on the current," he directed Caris. "Get lots of air into this rig." Still raptly concentrating on what he did, he took the cylinder from the bench and fixed its spigot in another chink. This, too, he made tight with putty.

"Isn't that the gas derived from the blight-nucleus?" asked Caris, though she knew well enough that it was.

Norfleet made no answer, and she switched on the air-compressor. It began to hum and whir. Norfleet turned the cock of the cylinder and bent down to watch.

A rosy, woolly cloud of vapor crept slowly into the glassed-in space. It blanketed from view the battered, cindered remains of Spencer DuPogue. Caris found herself glad not to see, but Norfleet bent close, his eyes a paler quicksilver than usual as he tried to pierce the pink mist.

"If I could see," he muttered, "I'd know how it works—lifting each molecule of the right substance into place, like a brick in some super-intricate structure."

"How can we know?" Caris half-moaned.

"We can't. We can only trust Nature, and Nature is capable of anything if the order of conditions is proper."

"But if something goes wrong?"

"If something goes wrong," said Norfleet tersely, "clear out at once, and let me deal with—with whatever wakes up inside this box."

HIS face set, and his lips drew as tight as a knife-slit.

"It's leaking out," Caris whispered, and Norfleet quickly dabbed putty on the joined edges of the glass slabs. "Now what shall we do?" she asked.

"Watch," he commanded, whether in answer to her question she could not say.

The pink vapor seemed thicker, darker, and through it the ghastly black cadaver could barely be seen.

"Turn the compressor higher," Norfleet bade the girl. "We've got to get plenty of everything in . . . now slower; the pressure is getting away from us. Hmmmm. . . ."

"What?" murmured Caris. She, too, was on one knee, staring.

The pink cloud was settling to the bottom, where cement made a floor to the improvised case. It seemed to assume a shape, like tinted cotton-wool tucked around an uneven bulk. Its new tendency toward shaping made it seem more opaque and firm, almost solid.

Norfleet turned off the flow of his pink gas. "Cut the compressor," he ordered. "We've done all that we can."

"Is it—working?" quavered his companion.

"Watch," he said again. And they watched.

The vapor was disappearing, disseminating. No, it did not disseminate, it was absorbing, somehow, into the limbs and torso of that black cadaver. Now it wasn't a black cadaver after all; it was Spencer DuPogue!

"Help me get this top sheet of glass free," said Norfleet tensely.

His hands, that had been so steady and scientific, now trembled as wildly as did Caris Bridge's, but with an effort they dragged the improvised lid free.

Inside, the air was clear and colorless. DuPogue lay there, in torn and smudged garments; but through the blackened rents gleamed pink, living flesh. An arm stirred, bent its elbow. A head lifted sleepily. The undisfigured face of Spencer DuPogue thrust up out of the glass-and-putty box, grinning rather sheepishly.

"That was a close call," he said, as though he had just waked up. "Clothes burned, but I didn't get a scratch. I ought to have had my fool head blown off."

Caris Bridge turned away. She did not want to be unscientifically hysterical. But Norfleet gazed at DuPogue, with a deep intentness that seemed to pierce the restored flesh.

"Caris," he said, "I wonder if you'd make a report—now—to your father and the others on the Board."

DuPogue got to his feet and sprang lightly out on the floor, surveyed his extemporaneous sarcophagus with a startled frown. Then he glanced around wildly.

"What's that got to do with—" he began, but Norfleet put out a hand to quiet him.

"I'll make the report," the girl said in a shaking voice. "I'll tell him that your experiments have succeeded—come to a wonderful climax."

"No," said Norfleet definitely. "Tell him that I've just begun."

"Good God!" exclaimed DuPogue as an incinerated bit of his clothes crumbled into ashes at his touch.

CHAPTER VI

The First Recruit

FOURTEEN men sat at a table in a conference room of a modest New York hotel. A fifteenth man stood at the head. He was young, with pale, bright eyes. In his left hand, with a bandage on the forefinger, he clutched a bundle of notes. He had been speaking. The only person whose expression betokened faith in him was a black-haired, black-eyed girl seated against the wall behind him.

The fourteen listeners were quiet, intent men, more than half of whom were illustriously known to any reader of illustrated papers. They were the members of the Board of Science, America's great coordinating body that worked with every foundation, laboratory and school of the civilized world, that now was taking charge of the desperate battle against the growing and distressing spread of the red blight in the West. Big, grizzle-haired Dr. York Bridge, chairman of the Board, addressed the young man who had been speaking.

"Only the assurance of my daughter, who is truthful and intelligent, made me credit your message, Mr. Norfleet," he said. "We asked you to fly here and report. And now you startle us further by this new proposition."

"We have Jupiter within our visual grasp," Sir Isaac Newton announced (Chapter XIII)

Oliver Norfleet's face showed that he disliked to be doubted. "All I can do is swear by all that I hold sacred—"

"We have already admitted that you can restore life," interposed another scientist, a heavy-bodied blond man with pince-nez. "Yet you achieved this wonder upon a freshly dead body, not a few morsels."

"There weren't many morsels left of Spencer DuPogue at the beginning," Caris Bridge flung over Norfleet's shoulder. Norfleet felt a trifle more assured by this stout championing.

"Let me begin," he said, "by stating a general thesis. Once each seven years, the human body restores itself. The young man of twenty-one does not retain a single molecule of the boy he was at fourteen."

"That is by growth and metabolism," temporized the man with the pince-nez, and others nodded agreement.

"Admitted," said Norfleet. "All that I demonstrate by the reminder is that a man's individuality—his personality, his mentality, his very soul—must be due to a pattern, not a physical structure. Any group of atoms and molecules, of the right compounds and proportions, put together in the same pattern, become that man."

"Unheard of!" exploded a little, shaggy man with a pug nose. "Preposterous!"

"Hold on, let the young man speak." The new voice was that of a slender, personable old man, with a great mane of gray hair and a heavy, dark mustache. His words were strongly accented. He was the greatest scientist and philosopher of the age. "His recent triumph," went on this defender of Norfleet, "was also unheard of until he achieved it. So far I am inclined to support his thesis."

THIS powerful personality, declaring thus for Norfleet, hushed pro-

tests. Norfleet continued:

"My compound, the pink gas of life, needs very little to work on. I have dealt with desiccated and partial forms, with absolute success. Give me ashes, a bone or two—something to establish and complete the pattern. Then, I need add only the normal matter, obtainable in the air—carbon, oxygen, nitrogen, hydrogen—"

"It sounds like restoring a dinosaur from a jawbone," grunted Dr. York Bridge.

"I could do that, too," returned Norfleet at once. "A living, breathing dinosaur, not a mere skeleton."

The greatest scientist caressed his heavy mustache. "I am impelled to suggest," he said carefully in his accented English, "that the young man's plan is worth trying."

"Will it succeed?" asked Dr. Bridge.

The gray mane shook. "Who can tell? And what better way of defeating the blight has been offered? Dynamiting—and the blight has only been thrown upon the dynamiters, who died in agony. Walls—it scaled them. Fire—it stumbles across it. Trenches—it fills them and flows past. We need better methods conceived by great minds. Let this young man, I say, restore to life a greater man than all of us!"

Thus he gave words to the proposition, that after Norfleet's first statement of it, had been avoided as somehow impious by all the company.

"A great scientist," elaborated the speaker. "A giant from eternity, of the highest courage, humanity, brilliance. Our recommendation would open any grave."

There was a moment of silence and then Dr. Bridge, as chairman, asked what great man of the past would be most suitable.

"Galileo!" cried the shaggy little fellow with the snubnose, whose great enthusiasm was astronomy.

"Da Vinci!" came back the blond with the pince-nez.

But the gray-maned man whose English was accented turned his expressive eyes upon Norfleet. "Perhaps you, *mein junger Herr,* have a name to offer?"

Norfleet held out his notes. "I have written it out, sir. Here at the bottom."

The other took it, read the name, and a smile dawned under his mustache. Dr. Bridge cleared his throat.

"I take it that Mr. Norfleet has completed his report," said he. "Perhaps he would like to leave the room and let us discuss freely, perhaps vote."

Norfleet bowed, and left. Caris Bridge hurried after him into the hall.

"I'm sorry," she mourned. "I thought I'd swing Daddy from the first."

"You did your best," he said. "Would you like a cup of coffee?"

"I'd like a gallon," she smiled, and they went downstairs to the hotel grill.

There, after more than an hour had passed, a page boy found them. They were being called back.

IN the conference room, the great scientist with the gray mane was on his feet at the speaker's place at the head of the table.

"Young man," he greeted Norfleet with a smile, "I am able to tell you that we will let you try."

"Whom am I to bring to life?" Norfleet asked at once.

"Your own choice," was the reply, and the old man passed his bundle of notes back. "Louis Pasteur. He combines best the virtues of courage, humanity, scientific sense and adaptability."

Norfleet bowed. He did not trust himself to speak in thanks or assurance of success.

"You will make ready to leave for Paris at once," Dr. York Bridge told him briskly. "I will get transatlantic airline tickets for this very night. In the meantime, we must launch the most delicate and unprecedented campaign to make it possible for you to enter the sacred tomb of France's most beloved savant." He looked levelly at Norfleet. "See that you do not fail us."

"I won't," Norfleet promised.

"He won't," seconded Caris Bridge loyally. . . .

Night in Paris, on the Rue Dutot. Quiet was the great stone pile that is the Institut Pasteur. But, in the basement tomb of its illustrious founder, a dimmed light shone upon two nervous young Americans.

"I hope everything's all right, Noll," said Caris Bridge as she unpacked a kit bag and laid on the mosaic floor a robe, a thermos bottle and a pair of slippers. "I can't forget what we were told today."

"Nor can I forget the manner of telling," responded Norfleet moodily. "That French director was mannerly, but definite." He repeated the words that had impressed them both:

"'Young people, I admit you to the tomb of Louis Pasteur on the earnest and prayerful recommendation of American colleagues whom I honor, whose wish I cannot refuse. I turn my back upon what you do there. But, if I find that this is in any way a deception or joke, I swear to kill you with my own hand.'"

Norfleet, too, unpacked the case he carried. He produced a drill, an automatic air-compressor, a cylinder of the pink life-gas, complete with a gauge.

"Well, we're here to try," he continued, more brightly. "We've no time to lose, not even with transatlantic airplanes. This is the fifteenth day of the blight's progress, and it already involves two thousand square miles."

He approached the sarcophagus of dark green porphyry in the middle of the great vault. For a moment he gazed upward at the arched roof, with its four angels—Faith, Hope, Charity, and that fourth Pasteur had served, Science.

"Tell me again what that motto says at the head of the stairs, Caris," he requested.

"'Blessed is he who carries within himself a God, an ideal, and obeys it—ideal of art, ideal of science, ideal of country, ideal of the Gospel virtues,'" she quoted.

"Thanks," said Norfleet, and smiled. "Louis Pasteur wouldn't have said that if he hadn't understood and approved things like this—if he wouldn't be glad to awake and help us."

He began to drill at a corner of the huge case where, since the year 1895, had lain the body of the great scientist.

"Death must be a tremendous experience," he remarked as he toiled. "Look what it's done for DuPogue."

"Yes," agreed Caris. "He's so much more capable, so quick to understand and improve. It's death, or the pink gas, or both. I had no objection whatever to leaving him in charge at home."

"You didn't hit it off with DuPogue, did you?" he teased her, smiling again. His drill had gone through, and he withdrew it to insert a long, narrow tube. To the free end he attached the gas cylinder. Then, moving to the opposite end of the sarcophagus, he began to bore another hole.

"Is the compressor ready, Caris?" he asked at length. "Good. Attach it here."

HE helped her do so, and they stood back. Norfleet tested the lid of the big green box, found it loose and liftable, as had been austerely promised by the officials they had seen. Then he turned on the compressor and, finally, the gas.

"Won't it blow the lid off?" asked Caris, watching the gauge-needle tremble on the compressor.

"No, the gases are becoming solid—both the pink life-stuff and that rush of air. They go to the building of living tissue." Norfleet gazed at his watch, counting the seconds as they fled past. At length: "Turn off the compressor, Caris."

As she did so, he closed the gush of gas from the cylinder.

"Now come and help me." Together they heaved up the lid of the sarcophagus, and the lighter lid of the coffin within.

A form stirred in the shadows there, muttering indistinctly.

"Monsieur!" called Norfleet, in a voice that shook despite his efforts. "Pardon us, I beg you; we have presumed—we have dared, in the hour of Earth's great need—"

The form was now sitting upright in the coffin, the form of a slight little man in black frock coat. They saw a youngish, dark-bearded face, and two puzzled eyes, as brightly gray as Norfleet's own.

"You are foreigners, *hein?*" came a slow question, in heavily accented English. "Don't apologize for waking me—how well I feel today!" A left arm straightened out. "*Tiens,* my paralysis, the weakness of my left side—it is gone!"

Caris had opened the thermos bottle and was pouring milk into the metal cup. "Drink this, Monsieur," she said. "It will make you feel better."

He took the cup, and drank. His teeth gleamed in his beard. "A thousand thanks, Mademoiselle," he said graciously. "My last memory is of being too weak to take milk." He drank again. "This is excellent," he praised. "Is it pure? Healthful?"

"Of course, Monsieur," Caris assured him. "It is Pasteurized."

Louis Pasteur almost dropped the cup.

"What is that word?" he demanded. "And who are you? And where am I?"

Respectfully, Norfleet aided the mystified little genius to rise.

"Permit me to give you this robe, Monsieur, and these slippers—it is chilly here underground. Then we shall do our best to tell you."

CHAPTER VII

Savants from the Past

ANOTHER night, this time in London. A single flashlight probing the abysmal shadows of Westminster Abbey, a trio of whispering figures in the northern aisle of the nave. On either side of them, a rank of monuments, medallions, inscribed tablets.

"Here it is," said Norfleet softly, as the light in his hand found and illuminated a great flat block of marble, set almost flush with the floor. Caris came forward to his right elbow, setting down her kit full of small necessaries. To his other elbow pressed little Louis Pasteur, his short beard bristling with excitement, his gray eyes—nearsighted no longer—peering at the inscription.

"Charles Darwin," he read aloud, and nodded. "And is this slab loose?"

"So I understand," Norfleet made response. His light shifted, was reflected by a slanting bar of iron that seemingly sprouted at the head of the simple tomb. "Yes, there's the crowbar, already in place. A single heave, and it will come up."

Pasteur sighed. "I begin to understand the so astounding magnitude of this life-giving miracle of yours, Monsieur Norfleet," he began, "and I hope soon to understand our *ouvrage trés gigantique* — our tremendous task — which we face. The blotting out of a great soreness of Earth's very substance, *n'est-ce pas?* Something all living scientists are finding incurable, have I it right?"

"Exactly," agreed Caris. "You will remember, sir, that rabies were considered incurable in your day."

Pasteur chuckled, and bowed to her. "*Ma fois,* you are a diplomat, Mademoiselle. But I have already promised my poor aid, and suggested that we recruit this greater, holier spirit to the conflict." He looked again at the inscription on Darwin's tomb.

"A good choice," granted Norfleet, "but it was harder to get in here than into your crypt. We had to convince, not only scientists, but churchmen and cabinet members."

"But here we are," Pasteur said. He helped Norfleet pry the slab away. Then he turned to receive the articles that Caris was unpacking from the kit bags, while Norfleet dropped lightly into the crypt below.

"Here's the coffin, right enough," called up the young scientist. "Hand me the drill—thanks. And the compressor, and the gas cylinder."

Pasteur lowered the needful instruments into Norfleet's grasp.

"Fortune favors you, *mon ami,*" he said earnestly. "Within minutes, a new ally will rise from this grave."

CHARLES DARWIN, wrapped in the same robe that had previously comforted the awakened Pasteur, sat upon his own replaced memorial slab. He was a tall, spare man, with a high forehead and beaked nose. Like Pasteur, he seemed to have revived to his prime rather than his age. His long beard was darkly youthful. He accepted tea and buttered rolls from Caris, listening the while to the alternate explanations of Norfleet and Pasteur.

"Somehow, I accept the fact that I have been dead a long time," he told his revivers. "Since you have restored me to life, I have no choice but to accept these other wonders you describe." He took a sip of the tea. "It remains to be

seen if I can adjust myself to this new age and tempo of civilization."

"But, Mr. Darwin," pleaded Norfleet, "you'll help us, won't you? Against the red blight, I mean."

"Of course, of course," Darwin assured him, in a tone that seemed to make the help and the problem almost dully casual. The craggy, apostolic head lifted, the eyes that had visioned a new cosmic life-truth sought to pierce the lofty darknesses around him.

"But why was I buried in Westminster Abbey?" he inquired. "Surely I was never worthy of that."

"Oh, Mr. Darwin!" protested Caris.

"But, Monsieur, who more worthy?" added Pasteur, with ready French tact.

Darwin waved the implied compliments aside. "If indeed you crept into this abbey to restore a dead scientist for your ally, why not open the grave yonder?"

All turned to follow his gaze, and Norfleet lifted his flashlight.

The beam revealed a black sarcophagus, looming among the monuments. Upon it lounged a human figure—no, a stone replica of one.

"Go near," Darwin told them, "and see how you dug a mere pebble of science from this crypt of mine, while you ignored the great crag yonder."

The four of them moved together.

"Sir Isaac Newton," Caris identified the tomb.

"A great man," agreed Norfleet to Darwin, "but Pasteur pointed out, and we saw, the particular excellence of your own researches and findings, into life itself—"

"Assuredly," chimed in Pasteur eagerly. "This is angry and menacing life that we must face and fight."

Darwin grinned, like a teacher who finds his favorite pupils dull.

"Newton knew not only this world," he said. "He knew worlds, their relationship to each other, their touch and pull upon each other." He addressed Norfleet again. "Have you any of that life-agent remaining in your cylinder?"

"A little," said Norfleet. "Just about enough for—"

"And do not a few hours of darkness remain for our work?" persisted Darwin.

Pasteur laughed aloud, and struck his hands together in applause.

"Bravo!" he cried. "Why do we wait? *Alors,* I bring the crowbar myself."

GENTLE evening, on the outskirts of Kansas City. Four men sat down to supper in the dining room of the old house that had become Norfleet's headquarters.

Norfleet gazed down the table's length at Sir Isaac Newton, a sturdy, colorful figure in plum-colored coat, lace jabot, and full-bottomed wig. It was Caris who had suggested that each of the restored scientists would feel most at home in the costume he had worn in his previous life. To Norfleet's left sat little, vital Pasteur, carefully buttering a radish. To his right was tall, spare Charles Darwin, who might have sat for a portrait of Moses.

Caris and DuPogue were absent. They had gone to reconnoiter the steady, uncheckable advance of the red blight in Kansas.

That red blight had engulfed the town of Ingalls, the town of Cimarron, the town of Dodge City. It had continued its threat to human life. Half a dozen farmers' families, disregarding the warning of government observers, had tarried too long as the invader spread near, had been touched and seized—and had perished miserably. Much livestock had likewise died, and orchards and fields had disappeared. Yet a certain confidence prevailed at the supper party.

"Egad, gentlemen," rumbled Sir Isaac Newton, cutting away at his slice of beef, "I do protest and avow that this gathering must produce definite and successful results in the strife to which we are pledged."

"Hear, hear," applauded Darwin, and Pasteur bowed in agreement.

"Ye have, young Master Norfleet," went on Sir Isaac, "a new distillation of these pink vapors, the same that gave us life again? The gaseous elixir, I say, of that demmed earth-eating curse out yonder?"

"Enough to bring one more life back," Norfleet told him. "Who shall it be?"

"Yes, yes," echoed the French scientist, "who shall it be?"

"Huxley?" suggested Darwin. "Or, if you like, Sir John Herschel?"

"If I were selfish," elaborated Pasteur, "I would plead for no other than Rous. *Tiens,* he was a faithful disciple to me, three-quarters of a century ago in Paris. Those days!" And he sighed.

NEWTON shook his majestic bewigged head. "I do think, gentlemen, that we were well advised to cast about among the more modern scientists. For myself, I have been exploring the books and records in Mr. Norfleet's library, yonder in the back chamber. Egad, there have been newer doctors and savants worthy of our brotherhood."

"If we but had a good mechanical mind—" began Darwin.

"Like Thomas A. Edison?" offered Norfleet.

"Edison? Edison?" repeated Sir Isaac slowly. "Gad's my life, I do bethink me that the very name is mentioned in your scientific journals, young sir."

"It certainly is," was the warm rejoinder of his host. "Edison,"—and he pointed to the electric light above the table— "is responsible for that. For the radio, or primarily so. For most of our electric power—"

"He sounds like the very mechanic we need," supplemented Darwin.

"Was he an honest man, this Edison? Kind?" demanded Pasteur. "He was, Monsieur Norfleet? Then let us have him, *hein?*"

"We shall have him," announced Sir Isaac, with a dry chuckle.

All the others faced toward him, and his smile broadened.

"Forgive me for being thus beforehand with ye," he said. "As I read the more of Thomas Alva Edison, I knew that ye would agree that he was the man we want. As soon as I heard that our young friend Norfleet had won some new life-substance, I availed myself of this new-fabricated device, the telephone. With it, I invoked another novelty, the telegraph. The message I sent to the Board of Science, had its reply this very afternoon."

"Concerning Edison?" prompted Norfleet.

"Aye, that. His grave in New Jersey has been opened. His body in a special coffin, is being conveyed hither on—how is it called, the machine that flies?"

"Airplane," Norfleet told him.

"On the airplane. It should arrive here before dawn. And before our noon meal, we may welcome Thomas Alva Edison as our comrade in science."

CHAPTER VIII

Counter-Invasion

IT took long for the Board of Science to recover from a sense of unreal astonishment at Norfleet's four returned paladins of knowledge, but partial recovery came soon enough to allow certain plans to be discussed and approved by telephone and telegraph; to arrange for the purchase and installation of new equipment; to review and approve a definite order of procedure against the blight.

An order of procedure was needful. The resources of the nation were being brought to bear, and not very successfully. Army engineers were concentrating their forces and machinery in Kansas, trying ditching, dynamiting, and burning, with no more than temporary slowing-up of the gradual extension of that red marsh.

It did not do to venture too close, either—more than one soldier had been suddenly snatched and digested into redness, like a fly that has buzzed too close to the spider. Meanwhile, the governor at Topeka and the president at Washington were besieged with visionaries, unbalanced scientists and quacks, each with a new and fantastic plan to solve the problem. All these confusions made the Board happy that in one sector, at least, great wonders presaged an even greater victory.

By common consent, no announcement was made of the identity of the quartet of recruits—all the world would have gaped in awe, then would have thronged to the scene to satisfy an embarrassing and impeding curiosity. Only a small corps of trusted messengers and workmen were in the secret, and these only because they

were needed at the headquarters house for various duties and scientific endeavors. For each of the new tenants seemed to have sextuple energy and capability.

Pasteur not only took full charge of the chemical and biological phases of the cellar-laboratory work, but installed a laboratory in his own sleeping quarters, so that there was barely room for a cot among his racks, glassware, lenses, and Bunsen burners. He had a full dozen of plans for the destruction of the blight, but refused to discuss any of them until his proof was partially established.

Darwin asked for, and received, at least a thousand books on life forces. He accepted without adverse comment the long tale of improvement upon his former theories, and himself worked on a list of new amendments.

Edison appropriated the entire loft of a barn behind the house, arranging and perfecting there his machine shop. His first task was to restore to working order DuPogue's exploded atomic motor and furnace. He, too, read much, and experimented even more.

His hours of sleep, as always, were four out of the twenty-four, and sometimes he skimped these. Though he was young again, his strong face was characteristically canny and alert, and he twisted his shaggy left eyebrow in the rare moments when he subsided to puzzle out a new complication of motors or levers.

Sir Isaac Newton had the smallest room of all, and into it he moved a library of astronomical works. He devoured, wonderingly but understandingly, the books of Einstein, Jeans, Eddington, and others. On the roof, he set up a fourteen-inch telescope, through which he scanned the stars each night. He perused, too, his old favorite, the Book of Daniel. Its strange prophecies stimulated him more than ever.

"DANIEL'S last chapter may have a message for us," he remarked to his colleagues at breakfast.

"'And there shall be a time of trouble such as never was since there was a nation, even to that same time.'"

"It sounds terrifying," agreed Darwin.

"But, as I remember, there is a promise of deliverance immediately following," added Pasteur above his coffee-cup.

The discussion came to an end as Norfleet announced his intention of rejoining DuPogue and Caris at the scene of the blight. All sprang up eagerly to seek seats in the big new automobile furnished them by the Board of Science.

The red pollution had grown from an acreage into a country. The party dismounted from its car in a deserted, burned-off field between two lookout posts of the military watchers. It was somewhere west of Hutchinson, Kansas, and nobody was in sight save themselves. They gazed out across an expanse of mottled red, seemingly made of various kinds of brickstuff, the level broken here and there by knolls, bluffs and ravines.

"It's like a Martian landscape," commented Edison.

"Eh? How? Martian landscape?" repeated Pasteur animatedly. "My dear friend, you inspire me to something—no matter what. Sir Isaac, come and discuss with me certain aspects of your new astronomical studies."

"All in good time, Pasteur," agreed Newton, and plunged his hands thoughtfully into the pockets of a long duster which hid his eighteenth-century finery from chance passers-by. "Just now, I wish to ask Norfleet how he engages to spy out this enemy country."

"By airplane," said his young colleague. "Ah, here it comes now."

A small monoplane had droned into view. As Norfleet and the others watched, it approached, circled, and dropped down. Idling to a halt not far away, it spewed two figures from its cockpits—first Caris, in leather jacket and helmet and goggles; then, from behind the controls, DuPogue.

"Were you flying the ship, Spence?" demanded Norfleet amazed.

"Of course," laughed his assistant. "Maybe you and Caris are right about the pink gas giving double life and power—ever since it woke me up that time, I've been learning things in race time. Flying," he boasted, "is easy. I took one day's instruction, and they said I didn't need any more. When I get back to Kansas City I'll tackle some real job—fixing that atomic blast."

"It's already fixed, Mr. DuPogue," Edison told him.

"What?" almost barked DuPogue, amazed in turn, and slightly piqued to boot.

"You don't have to shout," said Edison good-humoredly. "My old ear-trouble's quite gone, like Pasteur's paralysis. The new life agent does amazing things, as you just said. Yes, the atomic blast is as good as new. I think I have a couple of small improvements to work into it."

DUPOGUE almost quivered with protest. The atomic device had been his pet project, and jealousy that another should have meddled with it was rising in his heart. Sensing this, Norfleet made haste to address him again:

"If you can fly the plane, so much the better. I've brought armor for us—temporary protections against the blight, in case we get forced down." He dragged a bulky bundle of woolly looking garments from the car. "Caris, will you drive these gentlemen over to Hutchinson? We'll meet you there later."

"To Hutchinson?" echoed Darwin, from where he had walked to the very edge of the blighted ground. "But we came to go with you."

"That was my understanding, too," contributed Edison.

"*Tiens,* it was mine as well," cried Pasteur. "Why else did we journey so far?"

"To observe, not to court danger," Norfleet said, very firmly. "I can't afford to imperil one of you."

"If you mean to fly across this big stretch of blood-blister, let's get started," spoke up DuPogue, thrusting his long legs into an overall-like garment that seemed made of quilted cotton. "What's this thing I'm wearing?"

"My invention," Edison informed him. "Glassoid fabric, made flexible by

the use of converted rock fibres and an acid bath. But, Norfleet, we insist—"

"I insist, too," Caris broke in. "If you go, Noll, I go."

"Nothing doing," said Norfleet stubbornly, drawing on his own costume. "Pasteur, did you bring that little torch? Then fuse shut this opening at the front, and between glove and wrist. I want no chink through which the enemy can crawl."

"I, for one, am ready to go to Hutchinson," said Newton. "Pasteur, ye were suddenly inspired by what Edison mentioned of the planet Mars. I think I divine what ye wish to say. And I have a contribution to make to your idea."

And at length the argument was settled according to Norfleet's dictum—he and DuPogue to fly across the blighted miles on a scouting trip, the others to observe from the ground at its edge and finally to retire in the automobile. The two young men climbed into the plane, Norfleet forward in observer's position, DuPogue again at the controls. Their companions waved an unwilling goodby, and Caris, catching Norfleet's eye, thrust out her tongue in resentment.

"Keep that tongue to taste your supper," Norfleet laughed at her. "Goodby, all. See you in Hutchinson in a couple or three hours."

The ship sang into action, slid across the flat field, rose and banked around to skim above the red surface.

NORFLEET, peering down, saw a landscape painted in turkey red tints, with occasional highlights of cherry.

"How big is the area now?" he yelled over his shoulder to DuPogue.

"More than fifty miles across," DuPogue yelled back. "Down toward the Oklahoma border in the south, halfway to Colorado in the west, marching in the direction of Nebraska at the north." He, too, leaned to look down. "Why does it quiver?"

"The stuff pulsates," Norfleet howled to him. "Remember?" Then he saw something else.

In that red waste, where every normal particle, dead or alive, had been eaten by the advancing force and converted into new, uniform tissue, was something strange, uneven, dark. What?

He pointed down to it, and attracted DuPogue's attention. The pilot understood, began to circle slowly downward. Norfleet leaned even farther out, as far as he dared. With one hand he fished in a sidepocket of the cockpit, found a field glass. He trained it on the curiosity.

Bushes!

It could be nothing else. Here were great tufts, along a gently depressed ravine or arroyo in the redness. They had blades, even, or leafy sprays, stirring to the universal pulse-beat of the red fleshiness that sprouted them—and there was brown in their redness, and purple. Could some hardy growth have held off the greedy devouring force?

Norfleet tried to estimate the importance of such a discovery. They were miles past the border of the blight, and yet here was a plant with strangely resistant individuality, changed from the green normal indeed, yet growing and thriving in this captured segment of Earth—Wait. That was it; it grew and throve under such conditions because it belonged to them.

Belonged to the red blight, was part of it. Norfleet had already learned of the powerful life force of the forbidding phenomenon, had even modified it to his own use for reviving the dead. The blight gave life of its own, along different lines. Here, in its captured territory, its own peculiar life was flourishing and developing.

"Oh, for a camera!" he muttered. He must bring one next time. He patted the machine-gun he held under his right arm. Maybe that was more important.

Another stretch of unfeatured redness, a good mile of it, flashed by. Then a new prodigy. A stream ran its course below them, a winding serpent of liquid like any normal brook, but iridescently violet. Again, at Norfleet's signal, the plane swooped close enough for a survey. The liquid seemed to gush up from a woundlike gash between two liver-colored hummocks on the plain, and as it sped along its course it bubbled, from heat or from some strange chemical action.

After that, some more scrubby bushes; then more, not so scrubby, tall

and thick enough to constitute a little grove. Yonder were trees, or almost; the tops were like the bushes, but they lifted clear from the vibrating red surface, revealing thick, straight stems of a pale cerise tint. These things were disgusting in their flayed red wetness, but Norfleet could not take his eyes away. More wonders ahead, more. . . .

MINUTES passed. They must be near the place that had once been occupied by the little town of Ingalls, first scene of this vile assault on the world. Norfleet's eyes, questing ahead, brought him sudden assurance. Yonder blood-red patch, as big as a traffic circle, gave off light like a ruby. He recognized that light. It marked the center of the infection.

"Swoop and spiral," he ordered DuPogue. "That's the headquarters of the mess. And it isn't smooth any more. Something moves there, and not just a rhythm."

There was, indeed, a furtive twitching, almost troubled, as though a consciousness bode there, a consciousness that was aware of their approach. DuPogue brought his plane down to within fifty feet of the surface, then up in a soaring curve.

"Again!" called Norfleet. "There's something flattened out there, in the exact center."

But the something did not lie or flatten itself any more. It lifted itself cautiously, knowingly. It might have been a tremendous polyp, a hydra or anaemone of the ocean bottom, magnified infinitely. It had a thick trunk, like the freshly skinned torso of some big, blocky animal, and this lengthened smoothly and rapidly. Its crown was of slender, spreading filaments.

"It's alive," breathed Norfleet. "It moves, feels its way." Aloud, he said: "How close can you get, Spence?"

"This close," came response from behind, and down swept the humming plane, like a curious bird, above a sleeping snake.

Down, like a bird—and up, like a snake, struck the thing they wanted to see at close quarters.

Norfleet heard DuPogue's startled oath, felt the plane leap and buck around him, as though it tried to escape of itself. As once before with the atomic motor, DuPogue's horrified hands had played him false. The craft tipped, stalled, and fell out of control. Something clutched it from below.

Norfleet had the impression of a tremendous hand, many-fingered and sickeningly inflamed—a hand in whose palm opened a great orifice that might have been mouth, or eye, or some other organ not in normal physiologies. The grip was upon him, for an instant. Then he felt himself flying through the air, though the plane had stopped abruptly; the sudden jerk had flung him clear.

By some catlike striving he landed on his feet, with a straining, shaking impact. He made a few staggering strides to keep himself upright, though he sank to the knee in ruddiness as sticky-soft as some strange, bloody tar. But he ran on, on, not pausing lest he be sucked down. He found the darker cleavage that marked the margin of the nucleus area, won to firmer footing upon it. He dared pause and look back. To his surprise, he discovered he was still holding on to the machine-gun.

Slowly the great trunk, with its tangled tuft of grappling feelers, was sinking back to the level of the glowing surface around it. He could not say, because he did not look to be sure, whether it sank into a shaft or whether it merged back into the nucleus of the horrid blight.

His eyes were fixed upon a more arresting thing—the spectacle of the airplane, clutched and helpless, and the struggling, pinioned form of Spencer DuPogue, his body encoiled a hundred, whiplike tendrils. He fired a spasmodic burst from the machine-gun, but his efforts were futile.

A moment later, the entire mass—tendrils, plane, and DuPogue—sank from view. The central disk of ruby glow was again as smooth as some infernal dance floor.

CHAPTER IX

The Retreat and the Rally

NORFLEET'S first impulse did credit to his courage and not to his reason. He gathered himself to

spring back into the luminescent muck, plunge deep and try to drag DuPogue to safety. Then he realized the folly and futility of such an effort. He could never save his friend; he had best try to save himself.

Chance had brought him out to the north of the nucleus, and to the north he set the course of his retreat. It would be a shorter way out by perhaps a hundred yards—and he must hurry to escape. This terrible experience had taught him new things that might help him in the war he had taken up.

But, that the earth might profit, he must get away.

How long to travel twenty-five miles? Five hours, at the least—five hours at top speed, in this sweltering heat and armored with glassoid, feet unsure on the strange surface that had been Kansas earth before the blight. Would he survive so long, with the famished life-force gnawing through to him? He hurried.

Good job, he pondered, that he had refused to bring Caris Bridge with him. She knew most of his plans, could keep the pot boiling in his stead, with those four peerless minds to help her. He remembered how she had pleaded to share the danger, and he smiled to himself. Woman or not, she had spirit and courage. Would he ever see her again?

His drawn face and darting gray eyes turned this way and that. Somewhere around here had been the town of Ingalls, deserted by its panic-whelmed citizens, the houses and streets gulped down by the blight. No sign of it now. There were hills, to be sure, or the rises of what had been the rolling prairie; but they were not proper hills any more. They throbbed with that pulse of all the landscape, a rhythmic rise and fall that he could feel—even fancied he could hear.

The swellings of red stirred and swayed, like gross paunches or humped shoulders. For that matter, there was a repellent aliveness to the level over which he now trod in clumsy haste, the suggestion of a world-wide body surface. Here it was flaccid, like lardy, overfed flesh; yonder it seemed hard and horny, like scurf or callous; and those further dank depressions might have been vile, gargantuan wounds or lesions. Norfleet's gorge rose, and it took grit to conquer his nerves and his nausea.

He must rest. He forced himself to do so. Wasn't it true that the world's great armies, when marching long distances, stopped for a rest every twenty minutes? And didn't they go farther in the end? He paused, wishing he dared sit down. He glanced down at his legs; their bootlike sheaths were splashed with clotted red, like a meat-packer's overalls. How soon would the blight burrow through the layers of glassoid and fasten upon his body?

Something was watching him.

Norfleet swung around, his heart racing. But there was no movement—only, a dozen steps away, something like a gross, awkward shrub or flower, a spreading beet-colored jumble of spoon-shaped leaves. The thing fanned out to a diameter of about four feet, and was darkest, almost black in its half-concealed center. Another manifestation of the life-changes this blight fostered; Norfleet knew that he must not run from the moment of terror, lest he lose his head. He turned slowly away.

AGAIN, the sensation of being watched. That choking sensation of imminent peril drew his gaze around once more.

The growth was nearer, by three or four yards. And it was different, drawn together, its blades or petals bunched toward the center, then curved and their blunt tips touching the level redness from which the thing seemed to sprout. Now it wasn't flowerlike—it looked more like a spider, crouched up and drawn tense for a spring. Norfleet backed away, in spite of himself.

Look out! A third time his instinct spoke, and involuntarily he veered to one side—just in time. Another thing had risen behind him, seemingly from a marshy shallow, something ham-colored, amorphous, yet lifting a bladdery body upon two legs, holding out two upper limbs, craning a headlike lump in which opened eyes and nostrils. It might have been a snowman, fashioned from some filthy, gory drift—but it moved. And, from the other side, the

spider-flower was creeping upon him.

Norfleet set himself, struck out with his left and missed. His right, brought over with all his body behind it, connected. The human travesty floundered uncouthly backward, lost balance and sprawled pulpily, merging for the moment with the soft swampiness that had given it birth. And Norfleet ran, at last.

As he did so, he was aware of the splotch of color upon his gloved knuckles. That surface of his armor was too thin, he could not risk it. As he ran, with his left fist he clouted his forearm, at the place where Pasteur's torch had fused the material together. It cracked like sugar-candy at the juncture, and with a violent sweep of his arm he flung the infected glove far away.

He darted a look backward. The crawler was making after him, with a crablike, scuttling speed that matched his own. The anthropoid gargoyle had arisen and was clumsily doing likewise. And other grotesque things seemed to join the chase. He could not look too closely; he must keep his eyes on the trail of retreat.

Run, run—was this a thicket ahead? Surely these were plants, with stems and roots and whorls of branches—but plants don't move, they don't have openings at their branch-forks like eyes and nostrils and mouths, they don't try to bar your way. To the right, hurry—but there rose a forest of straight, sharp reeds, moving upon him like the ready lances of a goblin army.

Norfleet's legs felt straw-slender inside his swaddling layers of glassoid. His ears drummed, whirred; or was that a genuine sound from outside, perhaps a muster call over all this blight-conquered land? Surely there was arrayed against him a host of dreadful things, in a thousand shapes and each shape a travesty or horror. They waddled, slithered, skipped. They popped from behind hummocks, they poured from the ambush of ravines and folds. And overhead resounded the roaring rumble, as of something mechanical.

HE gazed up, if only to tear his eyes from the things that closed in upon him.

An airplane, by all that was blessed, an airplane! It hovered steadily over his head, an autogyro. And it wasn't that hellish red; it was green and gold—green and gold, the colors of true Earth things. Yes, and it was here to help him.

As a man who sees a vision in heaven, Norfleet stared up to something that tumbled and tossed downward, swaying just above him. A ladder, made of stout rope with metal rungs, was hanging there above him within reach.

A part of his brain wanted time and leisure to puzzle it out, how this rescue had followed and found him; but there was not a split second to waste. His ungloved right hand flew up, clutching the bottom rung. At once the autogyro began to rise.

His grip was almost broken as something with a puffy body and more than four long limbs rushed in and fastened upon his leg. A kick of his other foot dashed it away, and then he had been lifted into the clean bright air, was able to seize the ladder with his left hand and draw himself up.

He started to look down, then did not. A sight of that baffled throng—he thought he heard a whispering multitude of snarls—might be too much. He might lose his swimming wits, relax his grip and fall.

And so, for minutes, he rode with a drowning man's grip upon the ladder. When he gained back his strength and reason, he struggled out of his polluted armor and threw it down upon the red land before clamboring high enough to thrust his leg through the lowest rung. Finally, the autogyro won again to country where there was only green and brown beneath. It slowly lowered him to earth, then settled itself beside him.

Caris Bridge bounded out from her place beside the pilot.

"Well," she said, "I came along anyway, even against your orders."

Norfleet was white-faced. "Caris! Whatever for?"

Caris peeled off her helmet and goggles. "Call it woman's intuition, or whatever else you like. After you and DuPogue flew away—the poor fellow's done for, isn't he?—I drove the scientists at once to Hutchinson. This auto-

Then Norfleet, moving suddenly, got his left over the larger man's guard and flicked him on the nose (Chapter XVII)

gyro was for hire, and I dug out twenty dollars and followed you in it. Oh, Noll, what on earth happened?"

He told her briefly of the catastrophe that had befallen the plane and his friend and assistant, and which had almost befallen him.

"We must have come to the center of the area just after you got away," decided Caris. "We saw nothing but smooth red light. Then, a little farther off, the place was beginning to sprout funny shapes, like mushrooms on a dewy morning. Only these were live mushrooms." She shuddered. "What were those things?"

"I'd rather wait a while before I talk about them."

She continued: "In the middle, with everything closing in, was a cottony white figure. You, of course, in that glassoid overall."

"I did get one thing out of the raid," Norfleet announced, and held out a rag of his discarded armor. Upon its dangling end glowed a tiny droplet of red that emitted its own raw light.

"Get a bottle for it," he said. "It's straight from the nucleus. We can make more life-gas."

"DuPogue must be beyond even that help," responded Caris. "Too bad . . . come on, let's fly back to Hutchinson."

A DAY had passed, and once more the group was back at the Kansas City headquarters, minus DuPogue. It was hot, and the six sat in chairs on the cool, screened-in back porch.

"To me, at least, is suggested a possible explanation," Darwin was saying. "This blight is life, yet not a single life form. As time flows over it and conditions change, mutations occur—evolution."

"Think of it as a great culture of bacteria," amplified Pasteur. "Within the confines of a proper condition, *parbleu!* Germs swarm like grenadiers in a wine-ship. Perhaps my old opponents were closer to the truth than I thought when they vapored about spontaneous generation. It is a mammoth culture, a ferment."

"You two may well have the right of it," nodded Edison. "What do you think, Sir Isaac?"

"Again I take refuge with the prophecy of Daniel," was the deep reply of the man in the wig. "He tells of strange and terrible beasts—some authorities translate the idea as simply 'living-creatures' that will plague the world, but finally be defeated."

"We hope so," said Norfleet. "If Darwin is right, evolution is going on at breakneck speed in the blighted lands. If there has been so much development in this short time, what development is to come?"

"Pray heaven we shall never find out," exclaimed Pasteur.

"We must stop it," pronounced Darwin harshly. "Gentlemen, is it not bad enough that Earth is in danger of dying? Must the triumph over her be made worse, by these new forms of life moving where our own fellow-beings once ruled?"

"Where does this inimical life develop from?" demanded Caris, who had come in from the kitchen with a tea-tray. "Have you no theory, any of you?"

"Theory?" repeated Pasteur. "But yes, Mademoiselle; and soon perhaps. Eh, Sir Isaac?"

"It may indeed follow," nodded the astronomer. "Edison, I would hear how you have progressed on that technical matter of which we spoke yesterday."

"I can report progress," replied Edison, "as soon as I complete an alteration in poor DuPogue's automatic engine."

The mention of the lost comrade plunged Norfleet into a new sad reverie, not unmixed with wonder. DuPogue, brought to life by the blight, was now destroyed by it—or was he? What was the true conclusion of this paradoxical drama? He dared think that some day he might know, and that the knowledge would help him and the world.

At that moment, had an eye from the frightened outer world been able to venture toward the central point of the blight, it would have seen strange activity almost at the spot where Norfleet had escaped so narrowly.

The strange animals—if they could be called animals—that had come into existence on the red surface were gathered again, but not to devour or pursue. They stood or crawled in quivering groups and clumps, and in the atmosphere was the heavy sensation of their diffident interest and awe.

Centermost was a figure that had no duplicate in all that varied host of grotesques—a figure tall and lean, and not red or purple or maroon, but pink and smooth. It had been frightened, but now it was aware of its power over these other strange creatures. It seemed to enjoy that sense of power. That figure was—Spencer DuPogue!

But no eye could see, and the outer world could not know.

CHAPTER X

The New Danger

THE latest clash with the blight seemed a defeat for science; yet the four champions from eternity had a counter-attack to administer.

It would be hard to say who was chiefly responsible. Darwin did the scouting and observation at the edge of the red land, Pasteur the chemistry, Newton the rather staggering series of mathematical findings that the formula needed before it could succeed. The result was an acid, quite complex and more corrosive than any yet manufactured in quantity, and it actually held the blight in check.

It did not destroy that strange tissue completely, nor modify it, but it somehow defended the still undevoured edge

of normal soil from being overflowed, converted, and conquered. True, this acid which could encounter the blight on equal terms and hold it back was too powerful an agent for any regular container, and here Edison's genius did its share of the work.

The wizard of Menlo Park quickly designed, and offered in model form, a sort of multiple spray-tank, with the various elements for the acid's creation in separate containers. Only when all driven at once from a row of nozzles, which converged their lines of projection to a point a little way from their terminal noses, did these elements blend into the completed acid.

"We shall call it Edisonide," said Darwin generously, "for, without your help, sir, we could never have made our discovery perfect or brought it to any use."

"But that's silly," protested Edison, with a laugh. "I only made the machine that blends; I didn't have even a finger in the making of the compound itself."

"Then you can count yourself lucky," Pasteur assured him. "*Dites-donc*, it would have eaten your finger away like a stick of sugar candy—even as our friend Norfleet's finger was eaten by the blight itself." He stared at an angry blister on his own hand. "Behold, how a molecule of it worried my own flesh, *nom d'un cochon gris!*"

Caris brought unguents to dress his burn, and Norfleet rapidly coordinated the notes of all four colleagues. Those coordinated notes and Edison's model went, not directly to the government, but to the Board of Science, by air mail. The Board approved them at once and placed the plans in the hands of army engineers, who quickly made working mechanisms on the order of Edison's device and loaded these with the proper chemicals. A few days later, the acid-spray was tried against the blight—and it worked.

After that, numbers of the machines were rapidly but soundly made, and set in a ring around the great outflung border of the blight area—a circle two hundred and fifty miles in circumference and bidding fair to grow fast. To guard that line, and keep it from its threatened extension, twenty-five acid-throwers were set to work, each mounted on a truck and each patrolling an arc of the red circle day and night, with an unbroken stream of the acid falling like corroding rain upon the fringe of blood-colored mush.

It was Newton who moved at last to call it Formula XZ. Twelve thousand officers and men were employed to keep the project in ceaseless action. The desperate fight settled into a sort of weird, inverted siege, with the surrounding army seeking, not to enter and come to grips with the enemy, but to keep it from spreading out upon more unfortunate country.

ONCE or twice the body of overworked scientific laborers in the quiet, busy house on the edge of Kansas City took time to visit the edge of the menace and exult over its first partial success. They made a most picturesque automobile party, if anyone had been allowed to observe them. Squeezed together in the half-concealed rear seat sat four figures—the bearded, tall Darwin; the bearded, pert little Pasteur; Newton in brocade, lace, and dangling curls; and Edison in baggy alpaca, his shaggy eyebrows bristling in excited interest. In the front seat, calm silver-eyed Norfleet, and beside him the dark-haired Caris, both of whom still marveled at the wonder of having these four men with them.

"*Zut alors!* we make some headway," observed Pasteur on such an occasion, as he peered forth from the limousine at the distant stretch of flannelly red, and at the slow-moving truck that shot the ceaseless spray along its edge, "but, understand well, we make not enough of the headway. Our soldiers yonder labor hard, dispensing hundreds of gallons of acid which cost thousands of francs, but they keep things at a standstill—no more."

"By heaven, it's paradoxical," agreed Darwin, stroking his great prophet's beard. "We're like the Red Queen in that thing Professor Dodgson wrote about the girl that went through the looking-glass—we have to run our fastest to stay in the same place."

"Stab my vitals, but I'm never the one to be faint-hearted," Newton comforted them. "All must make slow be-

ginnings, like a dull dunce at school."

"I'd accept the comparison and the assurance, Sir Isaac," ventured Norfleet from the seat ahead, "if I thought you weren't a brilliant scholar in your boyhood."

"Pray accept it at once, then, young sir," Newton urged him, "for I was notably dull. I remember only one enthusiastic effort on my part. There was a bully at Grantham School, and I fought him—aye, and I lammed him well, egad!" His wig-framed face lighted up in a pleased smile of recollection of that boyhood struggle.

Pasteur contributed his own memories of early studies that were nothing sensational, and Edison added an account of how, in his childhood, he left school to sell papers and fruit on a train.

"I say, gentlemen," muttered Darwin, with a show of ruefulness, "you make me ashamed that I did so well at my own books. It argues stupidity in my mature years."

And all laughed. They were glad of the laughter, which strengthened them like a magic draught against the toil and disappointment yet to come.

Meanwhile, from the particle of the nucleus-tissue which Norfleet had brought back with him, they carefully worked a new quantity of life-gas. This they reported to the Board of Science, which forthwith rushed a package to Kansas City—a package containing a collection of bones and dust taken from a grave in the obscure French town of Sceaux.

NORFLEET had been gone that day, driving westward to the blight area for a conference in a tent, with army engineering officers in charge of the acid-throwing forces. The entire country, from hysterical fright over the spread of the gore-hued desolation, had turned to rejoicing at news of the device for checking that spread, had counted the battle already won. But that rejoicing had come too early.

On the northward arc, two trucks in adjacent beats had been overwhelmed, and a third just beyond them had narrowly escaped. It had befallen at midnight, and the surviving acid-crew had been able to tell a story that explained the probable fate of the lost machines and men.

This particular crew was made up of an earthly-minded old driver, with eighteen years of service with the motorized artillery behind him; two young machine-gunners who had charge of spraying the acid, since the nozzles were manipulated something like rapid-fire guns; and a non-commissioned officer from the chemical division, who saw to the mixture, the loading of the various receptacles, and the general command of the mechanized sentry-post.

They had the "grave-yard shift" of duty—eleven p. m. to seven a. m.—and had been at it for more than a week, alternating with two other crews daily. The novelty and the sense of danger had worn off so far as they were concerned, since the constant acid bath flung at the rim of the blight had kept it from advancing as much as an inch in that time; and good soldiers are not highly imaginative, at that.

The truck had worn itself a pair of ruts, along which it became easy to drive even in the dark, and the multiple nozzles, pointing from one side of the truck as it came and the other side as it returned, threw their spray-like streams of liquid with only the barest need of supervision.

On the night in question this crew of four, taking over at the usual time, had made their first run along the ten-mile curve in a little less than thirty minutes, turned around, reversed the nozzles to command the infected area as before, and made the return run in approximately the same time. At the end of this second trip there was a pause, for a slight breeze had sprung up from the direction of the blight lands and the chemical sergeant recommended that the spray nozzles be directed lower lest the acid be blown back against the truck.

THUS they started their third tour of duty at almost the very moment of midnight. Just before the driver switched on his battery and started the motor, a sound of whispering motion came to them, borne by that light breeze—straight from the blight area,

where no living thing was thought able to move or even exist.

Then the motor rumbled, and the slight noise was drowned out; but the sergeant had heard and, mildly curious, produced a flashlight and turned it toward the sound. That impulse of curiosity saved the truck and crew.

For things were moving there; lumpy, dusky things, some like gross clots of shadow, others wet and shiny, as though drenched in slime. Some were as small as terriers, others as huge as erect elephants. All were strange—so strange that the soldiers gasped in unsoldierly horror. None of them had ever seen such grotesque, mock-animal shapes, like cartoons of crabs, apes, caterpillars. It was, in brief, a sort of patrol or pack of the creatures such as Norfleet had glimpsed during his adventure in the inner bands of the area, moving forward to their own boundaries, as though to attack.

"Give 'em the acid!" thundered the sergeant, and the two gunners pressed the valves that released the liquid.

Out came a misty curtain of the fiery liquid, and that advancing throng of caricatures faltered under it—but did not wither, did not turn back. They came onward, stooping like men in a storm, wallowing clear of the margin of blight and spreading as though to surround the truck.

The driver providentially lost his head, swung the wheels of the machine outward, and drove away over the fields for a good half-mile. It was a jolting, breath-banishing journey, but it saved four lives. Probably the two lost trucks tried to make a fight of it, and were gulped down.

CHAPTER XI

Red Catapult

IN the dawn, when acid-armed soldiers concentrated at the point, there was a great salient of the blight thrusting forth into previously uninfected fields. Meanwhile, well in view from the edge, gross red gargoyles idled in little groups, like scouts. At two points within that thirty-mile slice of newly captured territory showed little mounds in the red surface, mounds fast sinking and blending into the level—undoubtedly the last remains of the luckless acid trucks.

"We're taking an awful shellacking," confessed a grizzled colonel of engineers, head of the command staff, to Norfleet. "The acid can keep the rim surface itself from extending, I suppose, because the action is modified and weakened. But those mobile fellows from the inner zones—ugh!" and he made a grimace of disgust. "I saw 'em a mile off, and they gave me a chill even at that range."

"I saw them closer than that," Norfleet informed him grimly.

"I don't envy you the experience. At any rate, they've got strength enough to stand up under the acid, and they can move outward, overcome our men where they overtake 'em, and literally track the blight into new quarters."

"These happenings show a rather startling new aspect of the business," replied Norfleet. "It's gone out of the category of a mere shifting of nature. These creatures, the individual dwellers that have been evolved by this strange ferment, are not only capable of hostile action against us, but they seem inclined to it. It sounds as if they've declared open and definite war."

"Nasty thought," remarked a younger officer, "but you've made a pretty good estimate of the situation, Mr. Norfleet. You ought to be an army man."

He meant it for a compliment, and Norfleet took it as one. "Thanks," he nodded. "I'm doing my best to help you, so consider me an army man and see if you agree with what I have to suggest as our advantages." His words made the officers look a trifle more encouraged.

"These creatures have been able to advance, but not far. They apparently like to have the blight-surface underfoot—if they can properly be said to have feet—and so they'll come only a little way, slowing up to let their country grow under them. In other words, they won't run wild over us. But be on guard against another raid from them tonight."

The colonel groaned aloud at the thought.

"You'd better rig some floodlights," advised Norfleet. "Turn them so that they will illuminate the infected space for as far as possible. Then you'll be able to see any party of them moving forward, and get set. Meanwhile, double the number of trucks, if possible. Sluice on that acid, as much as you can. Get the stuff running in rivers."

"I agree on that last point," spoke up the one who had said that Norfleet should be an army man. "They flinched a little under the spray, as I understand. Maybe a thicker drenching would scorch their tootsies."

"I'll do it," the colonel agreed, rising. "It'll take most of our available supplies of acid materials—"

"Requisition more," Norfleet told him. "I'll get the Board of Science to back you up strongly, maybe raise a fund for more of Formula XZ."

A VOICE sounded excitedly at the door of the tent, and then an orderly came in, saluting.

"Colonel, sir," he ventured, "there's a man outside with a report for the colonel."

"Send him in," ordered the colonel, and in came a lieutenant in flying togs. He was young and hard-looking, but visibly agitated.

"Chief of engineering staff?" he asked. "I've got a word on what's going on at the inside of the area, sir."

"Yes?" prompted the colonel, and Norfleet leaned forward to listen.

"We made a flight inward toward the center," said the aviator. "Two single-seater planes, mine and Captain Connor's. He was well ahead, crossing some of those paler red bands that show up a few miles inside this ring of outer dark stuff. Then—" He paused and shuddered.

"Then what?" demanded the engineering head. "Don't break off like that!"

"It's only that I can't describe it exactly, sir. Something flew up from the surface—"

"Like a bird?"

"No, sir. More like a bomb, a tremendous red bomb. I was far back, more than a mile, but I could see it come soaring up. An irregular mass, and it hit Captain Connor's plane—seemed to envelop it, drag it down—" He broke off again.

"I see," growled the colonel. "The blight seems to have anti-aircraft batteries as well as raiding infantry. And you, lieutenant, seem to have retreated at once."

The lieutenant stiffened. "I came back to report, sir. I thought the information valuable. But I resent any suggestion that I was afraid. As a matter of fact, I'm flying right back again."

"Not if I have any influence with the commanding officer of this department, you aren't," the colonel snapped. "We're spending enough money on the fight as it is without losing a lot of planes." He turned to Norfleet. "Any suggestions?"

"I agree that there should be no more airplanes risked at present," replied Norfleet. "Not until we see how far our acid will serve us against these new obstacles."

"Maybe acid bombs—" began the lieutenant.

"No good, I'm afraid," Norfleet told him soberly. "They might tear a little hole in the surface, but it would cover up again in a very short while." He faced the colonel of engineers again.

"I leave these things in the hands of the army, sir. You're doing splendidly, if I may say so, and I wish to congratulate you. I may have some more help for you in a little while, as soon as I consult—" He interrupted himself, on the point of betraying the secret of those scientists who lived again. "As soon as I consult the technicians who are working on the problem," he finished.

NORFLEET had been right, and the soldiers had been right, in considering the new aspect of the blight activity as an intelligent hostile demonstration against man. They might have gone even further, and said that it was a disciplined and concerted effort.

At the point where the denizens of the blight area, the things of lumps and tentacles and pseudopods, had gathered in their throngs of varied redness to pay what must have been homage to

The cone of light, fifty miles high and eighty miles across the base, glowed brighter, stronger (Chapter XXII)

a strange and powerful leader, something new among all the newest surprises of the blight was happening. An artificial shelter was being constructed.

The red of the material was lighter than that of the surrounding surface, and that of the grotesque artisans who combined their talents and strengths to fashion it; and that material was being produced in a simple yet effective way.

A great rectangular pit had been dug in the most level spot available, a depression perhaps ten feet wide by twelve feet long, a good six inches deep, its edges all painstakingly squared and even. Into this, as into a mould, flowed a semi-liquid exudation of the surrounding solid blight-stuff, the ichor of the marsh. As the new substance increased in quantity, certain things were stirred in.

Two red hulks that had no heads to notice, but quite evident stumpy legs, tentacle-fringed arms and shoulderlike ridges suited for burden-bearing, were making trips to and from a nearby spring that smoked and frothed as though with strange inner heat. In vessels of red elastic stuff, vessels that looked horribly like stomachs or bladders from fresh-butchered carcasses,

these carriers brought the water—or pseudo-water—of the spring, to pour into the flat, shallow pit.

Other things threw in quantities of pink, sandy powder, evidently fetched from a distance, and this made the mixture glow as with fire. Still others stirred the mess with long poles torn from treelike growths nearby. And to one side, watching and sometimes directing with gestures, stood the tall, pink individual who had become leader and coordinator of all these things.

By the time that the pan had filled with the two liquids, they had been thoroughly stirred together and blended with the sandy powder, making an oblong stretch of coral-colored mixture that hardened quickly into a slab. This was carefully pried out, more things mixed for another slab, and the finished piece taken to fit against others into a simple houselike structure. The action of the various ingredients might have been compared to that of certain acids on certain protein solids to make plastics; in any case, the results were similar.

There had been an observer from the other world; but he was Captain Connor, whose airplane, as reported to the engineering officers, had been struck down by a great mass of the blight. That mass was thrown in the most elementary manner from an improvised catapult, made of a slanting stem bent from its roots almost to the red surface that had once been good Kansas ground. And so he was unable to tell anybody.

Though myriads of the living creatures toiled at building the house—myriads whose forms were all different, as the forms of snowflakes are different—there were still myriads more, to prowl on far ridges or lie in groups in hidden chasms and hollows, a silent, baleful army waiting to come to grips again with humanity.

CHAPTER XII

One More Recruit

OLIVER NORFLEET drove back to Kansas City a very sober young man. The problem which he faced was becoming bigger, more weird, more difficult. Suppose that the blight had still more tricks to play, what then? The army engineers could do no more than check it as it was. He wondered what went on in that strange ferment of foul development which was apparently spawning these hordes of forbidding entities to threaten Earth. Evolution, in this infected quarter, was moving at top speed. He must ask Darwin about it.

In the evening he braked the car to a halt in front of his house and got out. As he came up the steps, someone opened the door to him. It was Edison, who smiled encouragingly.

"Wonderful news, Norfleet!"

"Glad to hear it," sighed Norfleet wearily. "Things aren't so good where I came from." He told what he had heard and seen. Edison clicked his tongue and thoughtfully tugged at his bushy left eyebrow, but at the end he bade Norfleet be of good cheer.

"We have one more recruit," he added. "Come in and let me introduce you."

"Oh, the remains sent to us by the Board of Science!" Norfleet had known the packet was coming, but had momentarily forgotten. "You've gone ahead, then, with restoring him to life!"

Edison drew Norfleet indoors. "Yes, and we're tremendously encouraged by this latest addition." Passing an alpaca-clad arm through Norfleet's he guided his young friend toward the porch at the back, where the little community liked best to spend the warm evenings.

"Who is he?" demanded Norfleet, but Edison shook his head.

"In the first place, not a 'he' at all—"

Norfleet stopped so suddenly that his arm dragged violently away from Edison's friendly grasp. "What's the joke?" he snapped, for his tense nerves were fraying after the day's cares. "What sort of a creature is it?"

"Come, come," chuckled Edison, taking him in tow once more. "There are other human creatures besides males, aren't there?" And so he brought Norfleet out upon the porch.

There sat Pasteur and Newton in chairs, rather stiffly and ceremoniously, as though they were paying a formal

call. Darwin's tall frame stooped above a table, where he poured tea into a series of china cups. Toward one end of the screened porch, facing the door through which Edison and Norfleet came, sat a figure in a rocking chair. It was a woman, strong-bodied but slender, blond, and lovely.

She was wearing a red satin housecoat that Norfleet recognized as belonging to Caris Bridge, and Caris herself stood behind the rocking chair. With deft, feminine fingers, she was fluffing the newcomer's frosty gold hair into a modish coiffure

"Your hair is so beautiful," Caris was saying. "It takes the wave marvellously. The moving pictures would fall over themselves to sign you."

"*Oui, vraiment!*" agreed the ever gallant Pasteur. "Madame is a paragon."

"You are all too kind," said the woman in the rocker, with a smile, that made her thoughtfully handsome face turn saintly. Her words had an accent, not as strong as Pasteur's but somewhat similar. "Yet I do not seek for any false dramatic career; I come to find that this true drama for which I have been wakened is quite exciting enough."

HER blue eyes lifted to fix upon Norfleet, and she fell silent, not shyly but with well-bred restraint, as though she waited to hear who he was.

Edison led the young man forward. "Here is our other colleague, Madame," he said respectfully. "May I present Mr. Oliver Norfleet, an American like myself?"

"How do you do," said the soft, accent-touched voice, and the smile returned faintly.

"Mr. Norfleet," went on Edison, still ceremonious, "this is Madame Marie Curie."

"Madame Curie. . . ."

As he repeated the name, Norfleet felt his knees tremble, his jaw slacken. This dazzling young beauty, with her pale golden hair and her saint's smile, the discoverer of radium and the paramount scientist of all women since Mother Eve! His brain suddenly churned with a flood of all he had heard of Marie Curie—her inspired labors, her fathomless brilliance, her unweary kindness, her devoted following of the star of science, and all the rest. He felt, somewhat to his own embarrassment, that he should kneel, take that sensitive slim hand and carry it to his lips. But all he did was bow slightly, and say in muffled tones: "I am honored beyond all measure, Madame Curie."

"Sit down, will you not?" Marie Curie's hand gestured him to an old straight chair beside her. Norfleet felt, rather than saw, that Newton and Pasteur both bridled like jealous boys because he was asked to sit closer to this radiant newcomer than themselves. "I understand," she went on, "that we all owe you these new lives of ours."

He started to protest, but she smiled it away. "I know that you expect great things from us, Monsieur Norfleet; but your preliminary work has given us both the chance and the criterion for this task ahead."

Darwin, aware of Norfleet's confusion, interposed to pass tea around. Norfleet, balancing his cup on his knee, felt the embarrassment pass and new strength and courage in its stead. Marie Curie, her compelling personality as well as the realization of what she had attained, had brought him comfort. Caris had finished her amateur hairdressing, and helped Darwin with a plate of sandwiches. It was a pleasant, if dignified tea party.

"Tell this young man," Pasteur requested Madame Curie, "of the theory you offered us."

"About the blight?" she asked, and faced Norfleet again. "Please forgive me if I seem arbitrary in stating my viewpoints; I do not mean to be, I only am anxious to make haste after you others who have forged ahead. But I think I have a comparison to make about this strange, cruel visitation."

"Comparison?" The young man's quicksilver-gray eyes earnestly met her gentle blue ones. "With what?"

"With cancer."

NORFLEET almost dropped his cup. As with many biochemists, he knew real horror when this disease was so much as mentioned. But Pasteur thought his startled gasp was of

protest or disbelief.

"*Zut alors, mon jeune ami*, give the matter thought," he urged. "The parallels are too clear to be disregarded. Let Madame Curie finish before you challenge her."

"I did not dream of refuting," Norfleet assured the company. "Please go on, Madame."

"Thank you," and once more her smile warmed him. "I make bold to point out that this blight—I have not seen it yet, but these others, my good new friends, have told me what they have surmised—brings death to all things of Earth, as we are used to those things. Yet this death becomes—feeds into, as it were—a new life, strange and powerful and, to our way of thinking, abhorrent. I have heard you quoted by Mademoiselle Bridge as calling it 'anarchic'. I thank you for the word. What is cancer but life gone wild and anarchic?"

"And how is it to be cured?" Norfleet almost moaned.

"*Enfin*, that is what we are gathered here to find out," Pasteur responded heartily, in a manner that would have rallied fainting troops to a victorious onslaught. "What news do you bring from the stricken area, *mon vieux?*"

Norfleet repeated the tale that he had already told Edison and it was punctuated by Pasteur with a rolling fire of French exclamations, by Darwin with repeated brief queries, by Newton with a single round Saxon oath, for which he immediately apologized to the ladies.

"As you seem to have surmised, evolution goes on apace in that blight country," Darwin said to Norfleet. "These things you tell about suggest a very high degree of development indeed, yet at the most they have been with us only a few weeks. They evolve, mature, and develop to other forms more swiftly than mushrooms. Strange for a new form of life-stuff—"

"Hark'ee, Charles Darwin, I may show that it is not as new as ye think," spoke up Sir Isaac weightily. "My telescope is ready on the roof, with the appliances the rest of ye have helped me fit to it. Tonight I may have something to demonstrate upon mine own part."

Madame Curie cried out in delight that all these other great ones were as eager and steadfast to fight as herself. The conversation took a mounting scientific turn, until it seemed to Norfleet that his whole education, progressing as it were almost from his babyhood, found him yet a child among these immortal adepts.

KINDLY Marie Curie divined this mood in him, and exerted herself to restore his self-esteem.

"Remember that we are all old," she said, looking as she spoke like the very spirit of youth. "We lived full and long lifetimes, each of us, before we went into that sleep from which your own discovery roused us. Yet we were all young once, and I, for one, will say that you are as wise a scholar and as strong a spirit as any I have ever known among men of your age."

"Amen to that!" intoned Sir Isaac at once, and Pasteur reached out a hand to clap Norfleet's shoulder in comradely fashion.

"*C'est juste,*" he elaborated Madame Curie's remarks, "and we have this other mark of the old ones—we grow garrulous. Forgive us that, Oliver Norfleet, and let Darwin pour you another cup of this so excellent tea."

The whole group joked Norfleet back into a sense of equality, and he ventured to join the conversation, even to make suggestions. His own dealings with the army men who watched and fought the blight were approved, and Pasteur agreed that enough of the Formula XZ acid, full strength, could keep the blight in leash.

"It is to our interest that we learn one thing about this condition," contributed Madame Curie. "We are aware of its progress on the surface, but how deep does it extend beneath? Does it remain as a superficial sore on poor Mother Earth, or is it eating down to her marrow, her heart?"

"You make me shudder," said Caris, and suited the action to the word.

But the others all endorsed Madame Curie's suggestion, and discussed possible ways of informing themselves. Meanwhile, dark was falling. Newton again spoke of his telescope on the roof, ready to reveal a strange and important

secret; and, at his invitation, all went upstairs.

CHAPTER XIII

The Fate of the Planets

THE roof of the house was not handsome, but quite practical in design. It was a four square pyramid, with eaves all around the house, the four slopes rising at the same angle and tapering at the top to join at a little square platform, covered with fireproof roofing and containing in its center the chimney. This observatory-like platform, some ten feet square, could be reached by a trapdoor through the garret, and Sir Isaac Newton had placed a ladder, hoisted his small telescope up, and from that vantage point studied the stars.

But as the party ascended in the early night—the seven of them had barely room to stand on the little scrap of level roof—they found something besides the telescope. Numerous wires edged through the trapdoor to the house below, or slung outward across the back yard to Edison's barnful of mechanical equipment. Too, between the legs of the telescope's tripod nestled a compact mass of coils and lights that suggested a stripped radio set, small but emitting a powerful whir.

A second machine, larger and more complex, was bolted to the slope of the roof just below, and connected with wires to the radiolike device. As for the telescope itself, the eyepiece had been completely covered with a housing, connected in several places to the attendant machines, to the house electric system and to Edison's barn. Set opposite this housing, aslant and fitted with still other conduits, was propped a small silvery rectangle, some ten by fourteen inches, woven closely of fine metallic threads in a fabric like gleaming silk.

"It looks like a television receiver," said Norfleet at once.

Edison glanced at Newton, who smiled back, as if in triumph.

"It is a television receiver," Edison replied, "but it's tuned in on a sending set never before contacted by Earth."

Madame Curie was examining the telescope. "Is this an arrangement to study the stars more accurately?" she inquired. "Explain, please."

"Allow me to do so," returned Newton in his best manner of eighteenth-century courtesy. One hand was thrust into the flapped pocket of his tailed coat, the other rested on the barrel of the telescope. "All this harks back, as one might put it, to the day when our young host, Master Norfleet, made his flight in an evil hour to the center of the blight area. It so happened that Pasteur was inspired to suggest—"

"*A la bonne heure,*" interposed the Frenchman. "Give this credit, if you please, where it makes itself due. I was inspired, you say, but because Edison remarked that the blight surface reminded him of a Martian landscape."

Edison laughed, from where he sat at the edge of the platform, his elastic-sided boots braced on the slope of the roof, and tinkered knowingly with the larger, lower machine.

"Don't give away so much glory, Pasteur," he scolded genially. "I mentioned the word Mars, perhaps, but that's all. It was you who connected my idle thought with the problem to hand."

"Yet I would still have been helpless without the astronomical skill and science of Sir Isaac here," Pasteur made haste to retort, as though he were defending himself against some accusation.

NEWTON, his wig-draped head bent above the telescope as he corrected the angle toward a bright, pale gleam just above the dark horizon, spoke.

"And I would have been equally helpless without this attachment which, perfected by Edison, makes our little telescope a clearer eye than the greatest of all lenses on your biggest mountain observatories."

"*Ma foi*, gentlemen," the soft voice of Madame Curie rallied them all, "I dare say that there is glory enough here for all of you, even if it is, as Monsieur Edison suggests, given away."

Edison had finished his probing of the mechanism on the slope of the roof,

and he now took up the lecture, showing Norfleet, Darwin, Caris, and Madame Curie how the telescope focused on a far object, bringing it into view, great or small as desired, on the television screen. The image was plainer, sharper, than in a simple reflecting mirror, and admitted of painstaking study. As he spoke, Sir Isaac completed his focusing on the star above the horizon.

"We have Jupiter within our visual grasp," he announced, "look well, ladies and gentlemen."

He pressed a switch on the unit beneath the tripod. Its hum increased, and the screen sprang into light.

All pressed close to look. Norfleet found Caris' arm thrown unconsciously around him, for the sake of greater compactness. Her fluffy black hair tickled his cheek. At his other side, the slim square shoulder of Marie Curie touched his sleeve ever so lightly. And they, and the others, saw appear on the screen a rectangle of velvet-black sky, peppered here and there with fiery little stars, within its center a great glowing disc banded in lemon, cream, brown and slate-purple.

"*Voyez bien,*" breathed Pasteur. "A satellite takes itself across the face of great Jupiter. Observe the dark round pill it makes."

"No, that is the shadow of the satellite," replied Darwin. "And look; the Great Red Spot."

"Aye, the Great Red Spot," Newton echoed him. "We have that for our present study."

He was twisting a dial at one side of the screen. Jupiter grew larger as they watched the rectangle, filling the vision space entirely. They had a larger, more limited view now, of a great banded oblong, with the red spot in its center.

"This is as large as the image can be forced, and still remain clear," cautioned Edison.

"I make bold to say that it is large and clear enough," replied Sir Isaac Newton. "Look well, ladies and gentlemen," he bade the company, as once before. "What does the color of the spot suggest?"

"The blight!"

Every voice made that same reply, and so exactly in the same moment that it sounded like a trained response. Newton chuckled softly, then grew sober again.

"Aye, the blight. The colors match wondrous well, d'ye agree with me? But what about this spot, as compared to the rest of the planet we see? Aside from the hue, I mean."

Norfleet was staring hard, a line of concentration forming on his brows between the quicksilver eyes. "It seems solid," he ventured.

"More solid, at least, than those cloudy bands that show on either side," elaborated Darwin. "They're plainly gaseous."

"Aye, solid," Newton agreed with them. "It is an island in a sea of clouds. And that solid bit is blight-red, the remainder varicolored. We know, do we not, that the blight does not involve gases—air, or other vapors? Perhaps it converts, at the end, the solids into gases, which thus escape at last from its clutch."

MADAME CURIE spoke.

"You think, then, that Jupiter suffers from the blight?" she asked.

"I am as sure of it as an honest scientist can be sure of anything," Newton answered her, and turned off the power of the vision screen. "The Great Red Spot is Jupiter's last particle of solid matter, gradually falling away under the last encroachments of the plague."

"If so, it is a pity your telescope cannot let us observe these advanced effects still more closely," remarked Darwin.

"We can, in a way." Newton was busy changing the slant of the telescope's barrel, this time toward a red point of glow that had followed Jupiter up the heavens. "There is more blight color in the sky tonight."

"Mars!" exclaimed Caris. "Surely not Mars?"

"I am afraid that it surely is," said Newton. Again he turned on the light of the vision screen, and corrected certain vaguenesses with the dial. Again a rectangular picture revealed itself, the starry skies with Mars, a great blood-orange of a world, almost filling the space.

"Look," cried Edison. "That skeptic Jeans should be here—there are the canals, just about as Schiarapelli and Lowell imagined and drew them."

"But are they true canals?" murmured Newton, his fingers still turning the dial. Mars swelled and grew near in the reflected block of sky, extending, as had Jupiter, beyond the limits of the screen. Norfleet bent closer to watch, dragging the rapt Caris with him. It was as though Mars came as close as the moon, and closer—as close, say, as St. Louis.

"This is our best enlargement of the scene," Newton said, and took his hand from the dial. "Compute it at, say, ten English miles to the inch. You, Norfleet, have had the fullest experience of the blight; what do you think?"

Norfleet, gazing, at once agreed with Newton. Mars was red, brick red, but no desert after all. That terra-cotta colored expanse was noticeably damp, marshy. No mountains, no hills even —they must have been gnawed down by the blight that covered everything, as it was beginning to cover Earth. But there was something of irregularity on that ruddy expanse, something that moved.

Caris saw it, too. "Look at those dots skipping around, like bugs. They must be alive, but not like bugs."

"They may be very like bugs, or even more repellent," said Norfleet, remembering what he had encountered shortly after the loss of DuPogue. "Only larger than an elephant."

"Much larger," agreed Edison, "if we see ten miles to an inch. To be sure, those creatures would have to be like whales on land."

"A dinosaur age," rumbled Darwin. "See how swiftly they move, with Mars' reduced gravity."

Other darker red inequalities were noticeable, but stationary, perhaps the pseudo-vegetation of the blight. And, toward one end of the rectangle, showed a vein of greenish-slate color.

"A canal?" suggested Madame Curie.

"We shall see," said Newton, and manipulated another of his dials.

THE scene shifted before them, as though the planet's surface was being dragged across the screen. More veins showed, then drab green patches.

"In my day, those were thought to be oceans," commented Newton, "and more recently, Edison tells me, they have been called vegetation. Yet they could hardly be that—not normal vegetation—with the blight at hand."

"What then?" inquired Pasteur.

Darwin was examining the scene closely. "Very resistant types of mineral matter," he surmised, stroking his beard. "Vitreous rock, perhaps, with complications of metals."

"This is fascinating," said Madame Curie. "Is it Monsieur Edison who is responsible for the mechanics? I congratulate you, my friend."

"Thank you," and Edison bowed. "Tomorrow morning I may be able to exhibit yet another device that I hope will please all hands."

"What?" asked Norfleet.

"It's a surprise," Edison put him off, and turned to Sir Isaac. "Better turn off the power now. We aren't equipped to run the thing for more than a few minutes at a time."

Newton did as he urged. They all stood looking at one another, close-crowded on the little square at the top of the roof, like castaways on some strange raft soaring in midair.

"At least you can see," said Newton, "that Earth is not alone in her agony. This has overtaken other worlds; it now comes to us by chance, from outward in space, or by time's strange memory of past misdeeds." He began to quote, as was his wont: "'Is there anything whereof it may be said, see this is new? It hath been already of old time, which was before us'."

"The Book of Daniel?" inquired Darwin.

"The Book of Ecclesiastes," replied Newton. Then he turned to Pasteur, and spoke in sudden amazed concern: "Why, sir, what's the matter? Hast become ill, mayhap?"

Pasteur was staggering at the edge of the platform, and might have fallen but for the quick snatch and grip of Darwin's hand. "Pardon," begged the Frenchman unsteadily. "It is the paralysis, I fear, returning to me."

They got him down the ladder, out of the garret, and into the parlor. Darwin, carrying the slight body in his

arms like a child, laid his friend on the couch. It was not paralysis after all, for Pasteur could move that left arm that had been so troublesome in his former existence; but he was weak, shaky and in pain. Norfleet fetched him some brandy and, after a moment, he sat up.

"It is nothing," he made shift to say. "A momentary weakness, no more."

But he was deceiving them, very valiantly. All were concerned and into the eyes of Madame Curie came a look as of one who reads strange writing understandably.

CHAPTER XIV

Norfleet's Quest

ON the following day, Pasteur felt much better, and applied himself once more to his numerous labors; but the lovely face of Marie Curie was still graven in an expression of sorrowful surmise. When she and Norfleet found themselves alone in the back yard, she told him what had come to weigh upon her mind.

"The recovery of that brave man is only temporary," she announced. "Soon he will become weak again, and that second time may kill him."

"Kill him?" echoed Norfleet. "But, Madame Curie, all his old illnesses were overcome. He was made young and vigorous by the life-substance."

"I have given my life to the study of radioactive phenomena," she made reply. "I know the manifestations of radioactivity, even strange brackets of radioactivity like this present one, when I see them. And, in a strange way, they affect Pasteur—they affect all of us."

Norfleet stared. Madame Curie continued:

"The miracle will burn itself out. The restored flesh will perish—perhaps crumble into dust or vapor. Pasteur, having been brought to life first, will go first."

"When?" Norfleet asked, his heart gone cold. "When will this happen?"

"I cannot say certainly until I have observed further, made more accurate calculations; but Pasteur will go first. Then Darwin and Newton, within hours of each other. Then Edison. Finally I shall go." She smiled. "You mourn for us in advance, my young friend. Please do not. None of us feared death before, and now familiarity with death breeds contempt. All we want to do is help the world while we may."

It was meant to comfort Norfleet, but he turned from the interview feeling deeply wretched. For the first time, he thought of what would follow the defeat of the blight—that defeat which he had never let himself doubt.

He also realized what he had subconsciously looked forward to; not reward, honor, or wealth, but pleasant calm and peace after the turmoil, and a little community of his friends. There would be polished Sir Isaac Newton, pert Pasteur, patriarchal Darwin, canny Edison, lovely Marie Curie—working, perhaps, at problems less dire. There would be hours of rest, social lounging, and good bracing talk. He, Norfleet, would be permitted to join in. . . .

But that was not to happen now. These dear brothers, this angelic sister in science, would be gone from him before he had time to know them.

He strolled to the barn, now almost crammed from floor to peak with the litter of mechanical experimentation by Edison and the others. Edison was there, in oil-stained unionalls, while Newton, his coat off and his frilled shirt protected by a canvas apron, was helping him fit together what looked like a covered rowboat of aluminum.

"I would have staked my reputation on this thing working," grumbled Edison between his teeth.

"I, too," agreed Newton. "Will not the power take hold?"

"Not for a moment." Edison straightened up and wiped sweat from his brow. "It's beyond me. I've had the engine to pieces twice, and it's still no good. You'd think something was missing—"

NEWTON had pulled an atomic engine into view, and now studied it with pursed lips. "It ran bravely last evening," he mourned.

"There's another engine like that one in the laboratory," Norfleet told them, strolling in.

"Really?" And Edison ran to the house, fetching back the new machinery. He and Newton quickly connected it in place of the recalcitrant one, and turned the switch. They cried out in relieved enthusiasm as the mechanism whirred into action.

"The thing will run," said Edison, "but how this other, in perfect order last night, could have failed—" He paused and shook his head. "I'll pull it to pieces again later in the day."

"Is this the surprise you promised me?" Norfleet suggested.

"It was to have been," Edison admitted. "As it is, the surprise is for me as well. I shouldn't have been so cocksure of myself and my work."

He and Newton had not yet lost their baffled expressions.

"*Parbleu,* this is a coincidence," volunteered Pasteur, coming from the rear of the barn and joining the group. "Me, I had hoped to make improvements in that acid formula for spraying. I completed yesterday a compound that I thought excellent, a corrosive that would devour almost anything. I left it here overnight to ripen. But see for yourselves!"

He held up a beaker, filled with dull greenish liquid. Dolefully he tilted it and poured it out—upon his other hand.

Norfleet exclaimed apprehensively, but Pasteur gave him a glum nod of reassurance.

"No damage done that soap will not abolish. The great corrosive is not a corrosive—not even a mild one. How could I have been so careless?"

The others could not answer that. Norfleet felt a nasty touch of mystery about the whole business. He could contribute a third angle to the coincidence—that sudden foray from the blight area upon the acid-trucks. There must be some sort of investigation.

"Another thing I did, in my room and not in this ill-starred barn," Pasteur continued, more brightly. "I took it indoors to work on, after dinner and a little during the night."

"Though you were ill?" demanded Newton. "That is not good, my friend."

"It is very good," insisted Pasteur. "I have now added the finishing touches. Behold!"

He returned to his labors at a bench at the rear of the shop. He was doing a strange sort of cobbling, which he held up to show Norfleet.

"See what I have been busied upon," he said, exhibiting one woolly looking knee-length boot, then another. "At last men can walk freely upon the blight surface."

"What?" And Norfleet hurried to examine.

"Simple enough, to the scientific mind," Pasteur explained. "The boots are of this good Edison's glassoid fabric, the same that made up your overall suits in your late sad adventure. But these will not be eaten, not even slowly —*jamais de la vie!*"

HE turned up the thick soles and showed the myriad pin-sized openings that peppered them. "The leg and ankle carry many compartments for chemicals, be it understood; and so with each step and pressure of the foot, acid is blended beneath, protecting the walker."

"Amazing," praised Norfleet, feeling as Dr. Watson must have felt when hearing Sherlock Holmes' learned deductions.

"And so, with these boots, one might walk clear across the blight area—walk across again and again, for a week together, should he not grow so weary as to sit down," elaborated Pasteur.

Norfleet turned to the others. "And what's that thing you're hammering at?" he asked.

"It's not as far along as Pasteur's boots," replied Edison over his shoulder, "particularly since this mysterious engine trouble; but we hope it's going to be a rocket aircraft, with the help of DuPogue's atomic engine."

The name of DuPogue gave Norfleet another thought. Even had his unfortunate partner lived to escape the blight, he would have faced a second and equally complete dissolution, as Madame Curie described it. He might have crumbled before this.

But was he dead?

Norfleet walked out of the barn again. Thoughts pelted him, new thoughts and fantastic, that yet built

into a sound pattern of logic.

The very nucleus of the blight had been employed to bring life back to DuPogue. Later, into that nucleus DuPogue had plunged. Why should it revive him once and devour him the second time? He half-decided to ask Madame Curie; but just then she appeared in the yard, accompanied by the towering Darwin. Their hands were full of papers, notes on some new enterprise, and they called loudly for Newton, Edison, and Pasteur. In a trice all three of the toilers had also hurried from the barn to answer the summons.

Norfleet, still at the barn door, could see the deserted workshop, the half-dismantled vehicle that Edison and Newton were fashioning, and, on Pasteur's bench, the acid-forming boots. Meanwhile, the five scientists were busy over their new problem, whatever it was, were absolutely unaware of him or what he might do. And Norfleet's thoughts brought him to a definite conclusion and plan of action.

He walked quickly in, took up the boots. He saw one other thing, among Edison's latest creations—a long-piped welding torch, powered with a tiny atomic engine. This and the boots he carried away without being observed. Putting his trophies into his car, he drove away before anyone could speak to him.

For the task he had assumed was one from which they would undoubtedly have striven to dissuade him, and he was determined to embark upon it.

Once he had been impelled to go to DuPogue's assistance, at the moment of the plane's wreck at the nucleus-edge, but he had turned away from that search. A thousand times since, his conscience had troubled him. Perhaps DuPogue had survived, after all. This wonder-possibility became stronger as Norfleet's silent logistics extended themselves. If so, someone must look for him.

The scientists he had restored to life? But they were too valuable, and their time was short. Pasteur's special boots would make a normal individual like himself as immune to the blight as any. He would go at once. A psychologist, knowing these thoughts, might have diagnosed Norfleet's condition as one of too tense nerves, and the psychologist would have been quite right.

DRIVING westward all day and reaching the town of Kingsley, not more than a dozen miles from the edge of the blight area, Norfleet ate dinner and spent a semi-restful night in a lesser hotel. In the morning he checked his car in at a garage.

"I'll be gone for two days, maybe more," he informed the garage proprietor. "Keep this machine for me."

"Yessir." The proprietor squinted at him nervously. "Hey, what if this red stuff, this blight, comes up?"

"Then drive this car away," Norfleet said, and smiled. "Maybe I'll catch up with you somewhere. Now, have you a cheap old car, good for a few miles of roughish driving?"

"Got an old Model T," replied the garage man. "Bum looking, but in as good shape as can be expected. She'll run; I'll sell her for thirty bucks cash."

Norfleet bought the ancient rattletrap on those terms, threw his boots and the welding torch into the back seat, and drove away. He came to the stretch of well burned prairie that ringed the blight, at a point where a number of soldiers were stationed. Beside the doubled guard of acid-spraying trucks the army observers had set up signal posts and transport units, and placed groups to guard the terminals of such roads as Norfleet now traveled.

"Hey, get back there, flivver," yelled a man with a rifle, and Norfleet put on the brakes of his creaking old car within a bare sixty yards of the blight. "Corporal of the guard!" the sentry sang out.

A corporal came.

"I know you," he addressed Norfleet importantly. "You're one of them scientists that surveys this big red slough, ain't you?" He spoke patronizingly to the sentry. "This guy's all right."

The sentry brought his rifle down, its butt to earth.

"Thanks," said Norfleet, treading on his starter. The old car approached the edge of the blight. It looked redder than Norfleet had ever seen it.

"Look out, mister, you're getting close!" called an apprehensive voice behind him.

But Norfleet bumped across the ruts made by the incessant passing of the acid trucks, and rolled into the red marsh. Treading on the accelerator, he gained as much speed as possible. The dismayed cries of the soldiers died away to the rear, and he ambled across a claret-colored plain, then beyond an inflamed-looking ridge. The normal world was shut away from his backward glance. Ahead showed only the fiery territory where blight reigned.

There were, of course, no trails, but the going was level and smooth, if somewhat wet and squashy. His first tire blew out shortly after he had driven five miles toward the center, the others went within the next five miles. Still the rims remained, stubborn against the gnawing of the blight, and Norfleet ran upon them. The soft going kept him from bumping too much.

HE came to a row of angular hills, crowned and tufted with the strange, bough-stirring growths that he had seen before, the things that he compared to, but did not identify with, bushes and trees. As he found a pass between two high brick-colored faces of the ridge, some of those growths appeared to gaze down upon him. Beyond, he sighted afar the first moving objects, scouts perhaps of the grisly garrison that had been giving such trouble to the acid crews of the United States Army.

There was movement, at a distance, as though to converge upon him. Several groups, which must have totaled at least fifty individuals, gathered and moved toward him, but his car went faster than they, ever inward. They came together behind him; a backward glance showed him a long line of bodies ranging itself between him and the outer edge. He kept on toward the nucleus, where DuPogue had last sunk from his sight.

An hour had almost elapsed since he crossed the verge of the blight, and he must have driven more than twenty-five miles, when the car would go no further. Its metal rims were too badly weakened to bear him, the wooden spokes eaten through in several places, and he dared not risk a spill. Sitting in the front seat, Norfleet drew on the boots Pasteur had perfected. They were elastic enough to fit on his feet, though Pasteur had made them to his own measure, a size or so smaller than Norfleet. Taking the welding torch, the young man stepped out upon the marshy, clotted surface.

Behind there was still a line of strange figures, their shapes bizarre even at that distance, moving to follow him. He set off toward the center of the blight. What had Pasteur said? "With these boots one might walk clear across."

The thick, canal-pierced soles were like great sponges under his feet but, though he sank almost to the instep in muck, no red, hungry blight caught hold of the woolly glassoid. He was safe from that menace, at least. Meanwhile, even if the weird creatures caught up with him, he had a weapon for them, too.

He slung the long barrel of the welding torch like a rifle upon his shoulder. Abandoning the car, he tramped briskly forward.

CHAPTER XV

The End of the Search

UP to this moment, Norfleet's mind had been too troubled, too full, to be completely serene. But not for weeks had he lived a normal life or striven against a normal adversary. And he was certainly not crazy. He was well aware of that himself, as he started this new lap of the journey on foot.

That old automobile, bought for a few dollars and run until its wheels were virtually gnawed off, had been a wise move. It had saved his time and strength. Now he tramped along, fresh and within four hours' walk of the nucleus region. The acid-exuding boots of Pasteur made it as safe for his feet as though he strolled in his own dooryard.

True, there were creatures, potent and animous, in this red land. Some of them were following him now. That was why he had brought along the atomic torch—none of them could stand against its blast, and he knew it.

Of course, he was taking a grave risk, but he was of the sort that finds itself able to take risks at need.

The rationalization on which he had barely begun now extended itself, made itself strong and valid in his pondering mind. DuPogue had been brought to life by a certain action of the blight substance; therefore he was adapted, as by an antitoxin, to some strange beneficence of that baleful stuff which otherwise threatened all Earth. He had fallen into the very nucleus-quagmire, but it could hardly have eaten him. Instead, it must have refreshed him.

It would refresh Pasteur, for instance. He, Norfleet, should have brought Pasteur along but for the attendant dangers of the animal-things. Perhaps the whole body of scientists could enter and conquer, an invulnerable patrol of search and survey. . . .

But too late to think about that now. In any case, they had their hands full of scientific work, of a degree beyond his own capabilities. He was here alone, and he would find DuPogue, or some trace of him. Of that much he felt sure.

As he walked, guiding himself by the heightening sun, he took care to remain in the open country. Too frequently there was a hint of stealthy movement at the tops of hills and hummocks or in the nasty erubescent thickets; the things were watching him and preparing to close in upon him. A meeting must come inevitably, and come it did.

He was skirting the lip of a low, winding gulch, that may have marked the dry bed of the Arkansas River, when from a low clump of umbrella-shaped growths, rather like bat-winged toadstools, rose a blocky form of dull crimson. It rushed clumsily at him.

Norfleet was cool scientist enough to stand still and gaze with absolutely detached interest for a moment. The threatening phenomenon, like so many of the evolvements of the blight, held itself toweringly erect with four stumpy, elephantlike legs at the lower end of its bulk.

Upon these powerful, clumsy limbs reared a great cylindrical torso, which alone would have been taller than Norfleet and too great in girth for his arms to circle by more than half—a huge red hogshead of a body. At either side sprouted a several-jointed limb, terminating in a serrate, curved extremity, more hook than hand or paw. These two limbs sparred and stirred like the forelegs of a praying mantis. Head—but there was no head.

THIS much Norfleet saw, in one quick, staring examination. A flicking touch from the creature would infect him with the blight, and so he waited no longer. Lifting his torch, he touched the trigger-switch. A lean thread of pale flame shot forth, full twenty feet in extent and, as it touched the onrushing thing, Norfleet drew it across, like a whiplash across the face of a charging bull.

The upper part of the headless torso sprang free, as though a giant razor had shorn it away. The two clumsy pieces of the entity fell quivering and thrashing, side by side. Norfleet permitted himself to smile.

"The blight gets a taste of its own medicine," he said, and cautiously detoured the place where his fallen enemy still throbbed. He wondered if a strong enough blast of pure heat would destroy the entire area, and decided not. At the beginning it might have been done, if the blight had been discovered when there were but a few square yards of it; perhaps a quick, big bonfire—but it was impossible now. At least, not completely and quickly. But he would offer his idea to Pasteur and Darwin and the rest when he got back. He was reasonably sure of getting back.

On he trudged for an hour, making better than four miles, for he was a fast and tireless walker. Behind him, as he noticed, some of the stealthily pursuing things had come to a halt around the severed cask-body. Perhaps they mourned. Certainly they were dismayed, for they kept their distance even more than heretofore.

Meanwhile, he observed with satisfaction that not even a fingertip of red stuck to his boots. The acid did not kill the blight, but at least defeated it. In the midst of all this potential destruction of normal things, Norfleet walked unscathed, and he felt that this might be a good omen.

But the red country was more broken

ahead, cut into little broiled-looking gulleys and knolls, with hollows filled with strange growths, its various shades of red running from angry arterial tints to almost subdued bisque or dark iron-mold. Those hollows he was able to avoid, but then he came to a prairie which was solidly tussocked and blanketed with low-growing, creeping stuff, a sort of nightmare grass, of a noisome, fleshy character.

He felt a little sick, despite his recent scientific detachment, for the stuff looked like thousands and thousands of close-set, red-dyed human fingers. And here, too, was awareness of a sort, for as he approached the edge of this revolting meadow, it stirred. A breeze? But the air hung still and sultry; those finger-grasses were moving of their own volition, as though they sought to grasp him.

With his torch he began to cut himself a path, a lane of smudgy black. It slowed him up, for he had to continue the swath for a full quarter of a mile before he came to higher, balder ground; and, though he made it safely along the way he burned for himself, the fleshy tendrils to either side seemed to strain and jerk as though they yearned to touch and seize his ankles.

But he breathed easier on the far side, and paused for a moment to view the terrain around him. He could not help but appreciate the wild, fierce impressiveness of the landscape, like a touched-up piece of the northern Badlands, or a sort of low-slung Garden of the Gods, in all its hundred rednesses, light and dark, angry and soft, glowing cherry and magenta and shadowed rust. His eyes felt hot, and behind them his brain ached a little. He might have done well to bring smoked glasses along.

AND there was the singing, too.

When it had begun he could not tell, but there had been a sort of rhythm from the start. This had become audible and more audible as he made progress inward, a vibration like a whispering string that was plucked and plucked again. It came from everywhere, as though all the blight country hummed to him.

Norfleet suddenly saw things from the blight's almost personal viewpoint. If indeed it was one complex chunk of strange life, he himself was a foreign body therein. He would irk it like a parasite on the skin, a germ in the digestive tract, a mote of dust on sensitive mucous membrane. It knew he was there, then; knew his exact location and was deciding what to do about him. No wonder that its vestigial manifestations, the free-moving creatures, gathered to see what they could do about driving him away or destroying him.

And here they came again, a flock of them.

They rose from a little depression no larger and deeper than a buffalo-wallow —perhaps it had been a buffalo-wallow once, in the days when Kansas was grown up in blue-green prairie grass and had no redder menace than Cheyennes. The pursuers were led by a strange walking pyramid on many spiny little legs, with a sprout of purple plumes at the pointed peak of it, like a chief's headdress, developed, Norfleet fancied, from one of the tree-like growths which had thus progressed from a vegetable travesty to an animal one.

It came in advance, the others fanning out into a skirmish line. There were plump things, angular things, shaggy things, and things two-legged and many-legged, with tentacles, jointed arms, trunklike feelers. Norfleet regretted that he had not the time to note them all.

He pointed his torch, like a rifle. A finger-tip on the switch, and out sprang the needle of fire, white and hot, straight at the pyramidal leader. The pointed top flew away, its plumes fluttering wildly, and the gross body settled slackly down upon its base, the myriad of narrow legs suddenly too flimsy to hold it. Without releasing the switch, Norfleet swept the muzzle of his weapon, hoselike, along the line.

A thing went floundering down in plain agony, its spinelike fur bursting into flame. Another toppled forward upon its face, if it could be said to have a face, and lay quivering. A lane was cut through the threatening rank, as had been cut shortly before through the meadow of finger-grass.

For that lane Norfleet made, threatening to right and left with his terrible torch. He was able to save his power now, for the monster shrank knowingly away. He won through, breaking into a jog-trot beyond. They pursued, but at a respectful distance.

Norfleet trotted for more than two miles, and came at last to the top of a gentle rise. Before him the ground sloped downward for miles, and he saw what he recognized as the nucleus of the whole infection, a circular patch of raw redness, shiny smooth and giving off a thought of rosy light. Between him and this pool showed something he had not seen on his previous visit.

It lay about a mile ahead of him, and close to the rim of the nucleus pool itself, a blocky looking object of coral hue and smoothness. Toward him extended a middle arm or length of it, and two other arms shot out at right angles from the far extremity. As a whole it was T-shaped, and of considerable size. He thought of the strange immensities that he had seen two nights before in Newton's vision telescope—seen as tiny crawling flecks on the surface of distant Mars.

THE universal hum grew more insistent, as though it summoned hosts around him. Once again he stole a glance back. His enemies had been reenforced from somewhere, and were following more swiftly and confidently. He headed toward the nucleus and its strange companion. Some fancy connected that massive T-shaped object with the fate of DuPogue.

He headed well down the slope, and behind him the top point of it shut away the territory over which he had traveled so far and successfully. He could no longer watch his pursuers, but he looked to right and left, and saw flanking parties stealthily closing in. The only way left open was in the direction of the fatal nucleus, and there he might come upon a devouring force that could obviate even the acid exudations of his boots.

For a moment he thought to stay where he was; but over the brow of the rise he had quitted came the blight creatures, a whole phalanx of them. They would be too many for his torch, and he moved on perforce. He approached the coral-tinted thing closely and more closely, and it was one more surprise for him.

A house, or a shed, had been built there. Its windowless walls and flat roof were of great rectangular slabs, fastened together with plastery red stuff. In the central extension of its T, the one facing toward him, was a sliding door, half open.

Was this a trap of some sort? Was he to be herded into it, and there destroyed in some unimaginable way? Norfleet paused once more, very close to that doorway, and faced around toward the host that was closing in upon him.

There were hundreds by now, in a semicircle that shrank toward him, like a great closing grapnel. He planted his feet firmly, brought up his torch.

At that moment a shrill whistle sounded almost at his shoulder.

On the instant, the movement of the grotesque army came to an abrupt halt, just out of range of his flame. The things froze like so many hyper-surrealist statues. Norfleet could see their vast variety of features. Bladder-bodies, stick-bodies, curve-bodies, legs like grasshoppers, legs like storks, legs like centipedes, spreading single organs of locomotion like snails, pseudopods like magnified protozoa; antlers, plume-tufts, probosces, antennae; hues all different, and yet all red.

The tense, suspicious hum was dying away to nothing. Menace seemed to recede in some degree from around Oliver Norfleet.

Then a laughing voice:

"Welcome, Noll! You've gone the forgiving father one better—you came to look for the Prodigal Son!"

It was a familiar voice, and when Norfleet spun around, almost slipping and falling in his astonishment, he saw the face of Spencer DuPogue!

CHAPTER XVI

Invitation from DuPogue

NORFLEET forgot all about the ranks of abhorrent entities gath-

ered to enclose and overwhelm him. The familiar voice and face of DuPogue were by far the greater shock and wonder. DuPogue, on the other hand, seemed rather mockingly self-assured. He lounged in the doorway, his unclad shoulder against the jamb.

"What's that you've got, Noll?" he asked, and then turned apprehensive. "A torch of some kind?" And he came quickly out to Norfleet's side. "Better give it to me. These things won't hurt you, not when I've ordered them to stand by."

He put his hand on the torch and Norfleet, still stunned with the turn of events, allowed him to take it. DuPogue examined the mechanism knowingly, and pursed his lips.

"Atomic blast, eh? Who made it?"

"Edison did," said Norfleet, finding his tongue at last. "Spence, you don't know how glad I am to find you alive. Are you being held prisoner here? If you are, come along. We'll fight our way out in a—"

"No, I'm no prisoner. I'd better tell you everything," replied DuPogue, still fingering the torch. "But will you walk into my parlor? Maybe I can introduce you to a nice, friendly spider."

It seemed a cryptic pleasantry at best, but Norfleet walked in.

Inside as well as out, the building was coral-tinted. Here, within the door, was an oblong room, bare and windowless, with no furniture save a bench made of a slightly darker and rougher substance than the house-stuff.

"Better not touch anything," DuPogue warned him. "Here in the vestibule it's modified blight, but it may still be hungry for unreconstructed organic matter. In fact," and there crept in a harsh, threatening note, "you'd better not do anything—until I say that you can."

"Whatever you tell me, Spence," Norfleet assured him, amazed by this sudden change in manner, "but—"

DuPogue held up a hand to quiet him. "Hold on. I'd better make things clear, right here and now. This blight country is my country, Noll. This house is my house. And you," he finished, again on a harsh note, "are my prisoner."

Norfleet stared, his eyes brightening as if with sudden resolve. "I don't understand you, Spence. Maybe I'd better not try to. But one thing I know—I'm not going to be anybody's prisoner."

He moved toward DuPogue, as though on careless whim, but his body was tense. He meant to spring and snatch back his torch-weapon. DuPogue seemed to guess as much.

"No funny business," he said quickly, "or I'll—"

HE whistled shrilly, on two fingers. It was the same note that Norfleet had heard before. There was a commotion at the doorway, and something appeared there—a lumpy figure, larger than a man, a sort of headless, antenna-armed red potato on two legs. It approached Norfleet menacingly, and stopped only when DuPogue snapped his fingers.

"Its touch would be death to you, Noll," warned DuPogue coldly. "And it obeys my slightest thought. Now, are you going to stay put?"

"I guess so," agreed Norfleet, with mental reservations.

DuPogue fixed his eyes upon the monster. After a moment under his concentrated gaze, it shuffled out again.

"One of my close associates," explained DuPogue.

"Don't expect me to admire your new friends," Norfleet snapped.

"Hmmm," and DuPogue thrummed his lower lip with a judicious finger. "They're not exactly friends. They're my subjects. I'm their ruler."

He glanced keenly at his old partner, studying him from head to heel. "Those boots—they brought you in. Your idea?"

"Pasteur's. But you're explaining something. Go ahead."

It was as though he, and not DuPogue, were in command of the situation. The other continued:

"It must have something to do with the fact that the blight-creatures and the general force couldn't do anything to scare or hurt me. The nucleus swallowed me, but I fought my way out. There seems to be a sort of rapport in our thought-streams; telepathy, if I may be so simple. Remember, I'm kin to them now, by way of the blight sub-

stance that's become part of me. We entities of the red country understand each other. Being the kind of man I am," and his naked chest swelled a little, "I rule them."

Noise at the door—the potato-creature was tramping back in. It held something in its bush tentacles, a conical object like a beet in shape and color.

"I willed it to bring food," DuPogue explained. "No speech or sign, only power of will—and food was what it brought." He accepted the offering and waved his bizarre servitor back from the doorway. Still holding the torch ready for defense, he began to gnaw. "This root's very tasty. I'd let you sample it, but it would eat you instead."

"All right," said Norfleet evenly. "You're boss, or god, of these nightmare things. You've got me here. What are you going to do with me?" He gathered all his power of persuasion. "Come on, Spence, forget this foolishness. Let's clear out together."

DuPogue shook his head fiercely.

"I'm not going back!" he fairly shouted. "I'm alive here, happy—immortal, even. These living things, manifestations of the blight, do whatever I think for them to do. With their help I've built this house. I'll do more than that, as the force advances and develops."

"But it isn't going to develop," Norfleet said quietly. "We've sworn to destroy it."

DuPogue lounged against the wall, weighing the torch in his hands. "Since you're so stubborn, we'll go back a point. You asked what I was going to do with you. Come into this back part—my laboratory."

IT was a definite command, backed up by the torch and the threat of the things outside. They went together through the half-open door into the rear room. The oblong compartment, set broadside to the vestibule, was full of equipment in various shades of red and allied colors — coral work - benches, orange-tinted bowls, various mixtures and types of powder, liquid or paste in violet, cherry, maroon, raspberry and tomato. DuPogue carried Norfleet's torch to the rear wall, and balanced it carefully on a narrow wall-bracket. If the blight should eat the tough metal, it could do so only at one point, and slowly.

"You see about you," he said to Norfleet, "the start of a brand new scientific career. I've only begun to study these things, but I'm confident I can evolve new foods, plastics, explosives, fabrics, powers—all that life needs."

"The blight is destroying all forms of life," argued Norfleet.

Again DuPogue shook his head. "Only the old green life, too weak to rule. There'll be a new world, red as blood. I'm part of that new world," and his voice rose exultantly. "I'll rule it. I say this is only a start—this house, these servants, these tools and food. You understand?"

Norfleet made a gesture of negation. "No. You invite me in here, tell me I'm a prisoner, but spare my life. Then you say all this about your equipment and plans. Come to the point. Where do I fit in?"

"It's like this. Will you come in with me?"

"Nothing doing," said Norfleet. "Maybe you've got something to say for this attitude. You think you must sell the world out to keep alive. I'm not going to blame you if I can avoid it. Yet—"

"Never mind the kind words," DuPogue interrupted. "I made it short; you do the same. Are you coming in?"

"Not me."

DuPogue turned from persuasion to bluster. "You'd better. I'm on the winning side."

"No, you aren't," said Norfleet, but even as he spoke, he saw that DuPogue might be right.

The blight, from its beginning, had conquered the devices and labors of all mankind. The government and the people had been helpless before it. Even his band of science-immortals had no more than checked it to date. And now, with DuPogue in the center of things, driven by a new motive to live and conquer along with the blight, directing the weird army of grotesques and making more perfect and invincible the abhorrent new world that was being built here—yes, DuPogue might well forecast his own ultimate triumph.

DuPogue seemed to read that brief

estimate of the situation in Norfleet's mind. He smiled grimly, and tried to drive the point home.

"I'll wipe the earth clean of humanity," he said. "I'm doing you a favor when I offer—"

"Keep your favors," exploded Norfleet. "I'm not joining." His dinted nose flared out its nostrils, in scorn and revulsion. "You think I want to live on among gargoyles?"

"There'll be other human beings," DuPogue assured him. "I've done some life-giving experiments myself."

AGAIN he had captured Norfleet's attention by sheer impact of surprise, and he followed up the advantage.

"You worked it on me and on those scientists—why shouldn't I do it, too?" he challenged. "I'm not awakening any geniuses; only stooges and scrubs, ready to obey and bow, picked out of country graveyards. One of them's a streamlined blond girl—" He broke off to sketch her outline in the air with enthusiastic hands. "Life will have its pleasures, even after the world is covered by the blight."

Norfleet nodded, keeping his temper this time. There were things he must find out. "That point about your revived humans gives me a hunch," he began.

"My spy system, you mean? Let me guess what your hunch is—Edison's atomic rocket-ship! Yes, I sent my men with instructions to tinker it out of order. They also spoiled some acid experiments of Pasteur's, by throwing in alkaloids. And they'll keep right on bringing that sort of work to nothing. Maybe the great scientists will sing small in the end."

"You're going to try whipping them into line?" asked Norfleet.

"No, I'll kill them." DuPogue's face grew dark. "You needn't look shocked. It wasn't my idea, dragging them out of the grave—it was yours. I didn't ask for their help, and I don't ask for it now. No, I'm not going to let them survive my conquest."

"You won't even give them a chance?"

"Oh, be sensible," DuPogue growled. "Would they give me a chance, if they were top dog? Or, suppose they would, where would I be in regard to ruling the new world? No, they get shut up and starve."

Norfleet turned away and made for the door that led to the front room and the outside. DuPogue saw, and whistled shrilly. Before Norfleet gained the threshold his way was blocked.

Something ungainly and revolting, rather like a freshly skinned bear, lifted itself on unsteady lower limbs and menaced him with huge paws. It had one dark opening in the center of its meaty face that might have been a wicked eye.

"You can't run out on me," drawled DuPogue from the laboratory. "You're here to stay, Noll."

CHAPTER XVII

Response from Norfleet

"NOW listen to reason," said DuPogue, and thrust out his hand in eloquent pleading as Norfleet turned back from the guarded entrance. "You and I have been close together for years, Noll. We've made a good team. You have lots of hunches and angles on science that I sometimes muff—"

"So that's it?" And Norfleet laughed, despite the fact that he was in a very grave position. "It isn't humane feeling, or mercy, or auld lang syne or anything like that. It's only that you need a good scientist—one better than yourself—to finish what you can hardly begin. Well, Spence," finished Norfleet, "I still won't do it."

The words stung DuPogue. "You still want to walk out?" he inquired slowly.

Behind the bear-thing at the entry now thronged other various shapes of nightmare, inimical and watchful, held back from charging only by DuPogue's telepathic whim. Norfleet studied them for a long moment. Then he shrugged, as if in resignation, and walked slowly back across the floor to the inner laboratory. DuPogue, watching closely, sensed defeat in the attitude.

"Good boy, Noll," he applauded. "You're going to see reason, I take it. Don't hold it against me if I high-pres-

sured you; I need your help, and you need mine. Now, let's see," he mused, the sly note again coloring his words, "is there anything else you need? It seems to me that there was a girl named Caris Bridge hanging around the old diggings in Kansas City. Maybe you'd like my outside gang to fetch her out here to be with us? Would that make you any happier?"

Norfleet made no immediate answer. He was passing through that inner door, and his gray eyes, apparently cast down, were studying the panel that could be used to close the way from the front room. It hung on wide hinges of pliable red stuff, like the leatheroid material of which DuPogue had made his moccasins, and it had a primitive latch of some kind on the inside. All this Norfleet noted carefully.

"Now, with your full permission, I'll kill you," DuPogue was saying calmly. "Then, as soon as my nucleus-material gets in its work, you'll be alive again, and my full partner. It's a shame we can't rope in at least one of the scientists, but I'm afraid none of them would stand hitched. So, the sooner we destroy them, the—"

Norfleet swung toward the door, shot out an acid-bathed boot. With its toe he hooked the edge of the panel, jerked it quickly forward. It slammed shut, the latch rising and falling into place. They were shut into the laboratory together.

At once the queer hum became noticeable—a universal note of suspicion. DuPogue swore and took a step toward the door.

"What's the idea, Noll?" he demanded apprehensively. "Aren't we going to be friends, and work and fight together?"

"We're going to fight together, all right," said Norfleet in a very soft voice that was somehow deadly.

He moved to cut DuPogue off from the door, walking gingerly on the balls of his feet, his chin in and his fists rising slowly. DuPogue saw these danger signals, and flung up his own guard. A moment later, Norfleet was upon him.

THEY sparred for opening, almost coolly, for both were fair boxers. Then Norfleet, moving suddenly, got his left over the larger man's guard and flicked him on the nose. His right, flung a moment later, landed fairly on the side of DuPogue's jaw. It was a solid blow, and DuPogue tottered under it, his own return left and right going wild.

Norfleet ducked, played with both hands for DuPogue's naked belly, then tried with a short uppercut that tipped his former friend's head sharply back. DuPogue barked an oath of pain and anger, and Norfleet chuckled fiercely. He was the smaller of the two, but he had always enjoyed rough sports almost as much as scientific study, and he was in better physical condition than DuPogue. Too, he was very angry, with the cold and murderous anger that often comes to the serene of mind and makes them terrible enemies.

But DuPogue was not beaten yet, physically or spiritually. He sparred for a moment with his long arms, and his bruised face grew crafty. He half-set himself for a leap at Norfleet, then broke to the right, ran around him and toward the door. His fingers were to his mouth, sounding his shrill whistling summons to the creatures of the blight that had made themselves his servants. But before he could lift the latch Norfleet had overtaken him, caught him by the shoulders and whirled him away. Next moment a charging weight struck the other side of the door, but the barrier held.

"I'll murder you, Noll," threatened DuPogue, recovering and facing the battle again. The vibrations shook the air more strongly.

"Maybe," said Norfleet, and came shuffling in.

DuPogue hit him, but he ducked and caught the blow at the roots of his wavy brown hair. It did not stagger or stop him. Sighting quickly, he let his left go once again, then a hard right that caught DuPogue over the heart. As the tall form reeled, Norfleet came well in, speeding a flurry of digging half-arm punches to the belly. DuPogue, not trained to take body punishment, moaned and doubled over. Again Norfleet brought up his right uppercut, connecting solidly, and DuPogue went awkwardly over on his back.

The door began to quiver under re-

peated awkward blows and the hum grew loud and threatening.

"Get up," said Norfleet, in his soft voice of doom. His killing mood mounted. "Get up," he bade DuPogue again. "I haven't even begun on you yet."

DuPogue scrambled erect, drawing away as he did so, but he was groggy from the knock-down and could not dodge or block Norfleet's next right-hander. Then a stabbing left hurled him violently against the wall, where he leaned drunkenly, gasping like a fish.

"Are you going to kill me?" he quavered, his eyes wide with fear of Norfleet.

"Maybe," said Norfleet again, and shuffled in as before.

He was careful about jabbing at DuPogue's face—should he miss and strike the wall, the blight would eat into his bare knuckles. Therefore he feinted his adversary back into the open, following him too closely to permit another break for the door which now fairly shook from the assaults of the things locked outside. Stepping inside an awkward right swing, Norfleet struck home to the mouth, and felt DuPogue's lips go into pulp with the force of that blow. Fierce exultation possessed him.

"Glad you reminded me about killing you," he said to DuPogue between set teeth.

DUPOGUE hit and landed, but lightly, and Norfleet only laughed. He saw an opening for another right, and hooked it swiftly in. DuPogue went staggering and stumbling across the floor, ludicrously like a comedian with rubber legs. He fell half - draped across the laboratory bench, hung there a moment, and slipped to his knees. But his hands still held to the edge of the bench-top. One of them stole forward, then darted. It scooped a handful of purple, pasty muck from an orange-colored bowl.

With an effort, DuPogue summoned strength into his legs, got shakily upon them. His handful of softness, held above and behind his head, menaced Norfleet.

"Move," he threatened, "and you'll get this in the eye. It'll eat you to the bone inside of thirty seconds."

"Throw it," Norfleet dared him, and lunged.

His head and shoulders stooped quickly as he did so, and the mass of purple flew harmlessly above him, splashing against the wall. Norfleet's shoulder slammed into DuPogue's midriff, his arms gathered in the trembling bare legs, and with an upward heave he threw the long body over and behind him. DuPogue fell heavily and slid along the floor with a howl, skinning his face and shoulder. But his howl died, and he scrambled erect once more, gaining the door at last.

This time Norfleet's perception and rush came too slow to stop him. DuPogue lifted the latch and the door flew open. The humming sound became a deafening wave, and there was a rush of creatures from outside, like great, animated joints of putrid meat.

On impulse, Norfleet stood deathly still. In a moment the things had partially surrounded him. They menaced but did not touch him. They were close enough for him to smell them—an odor sickeningly reminiscent of sweat and spice.

DuPogue was up and in command of himself again. From his fingers he licked the traces of the purple mass he had thrown at Norfleet.

"One man's meat is another man's poison," he mocked, his disfigured face twisting into a grin that must have hurt him. "Well, Mister Wise Guy Norfleet, are you in or out?"

"I'm out," said Norfleet at once, his eyes fixed on the blight-bodies and not on DuPogue.

"I'll give you ten seconds to think," said DuPogue.

Norfleet drew his muscles as tight as possible without betraying his plan to make a sudden violent move. He had an inspiration. On the wall behind him as he stood, balanced upon its bracket, hung his automatic torch. It still bore a charge.

With that weapon in his hands he might have a fighting chance. He might even cut these monsters away from around him, and blast DuPogue. More than likely he'd get daubed with blight in the scuffle. In that case, he'd burn a flame into his own brain, dying quickly

and cleanly, with his ring of slain enemies around him.

"What if I surrendered?" he asked DuPogue, still without looking behind him. The hum was dying down; perhaps he was safe for the moment.

"I'd do it, anyway," DuPogue replied cheerfully.

"Do what?"

"Kill you. The back of your head and your ears seem to signify astonishment, Mister Norfleet. Yes, I'm going to kill you. And then bring you back to life, as one of us."

NORFLEET'S visualization of the laboratory behind him completed itself in his mind. He spun suddenly and made a dash. His hands stretched out toward where the bracket would jut from the wall.

The bracket was there, but the long-nozzled torch was gone. Norfleet came to an awkward halt, staring stupidly. There was a muffled thunder of concerted movement from the blight-animals, but it died at DuPogue's hasty whistle.

"Looking for something, Noll? This?"

DuPogue stepped into view, with the torch in his hands, lifted club-fashion. Norfleet ducked only a little out of the way. The weight flashed and fell, he knew a tremendous shock of power and agony, lights and shadows. He fell forward, as fall the slain, and DuPogue dropped the torch to catch him.

Then Norfleet's wits took wing, like birds from an opened cage.

CHAPTER XVIII

Free Again

LONG afterward, those wits returned.

Norfleet knew first that he was waking, that he lay flat, that he was possessed of limp and feeble arms and legs, and a head that was crammed with dull pain. As secondary knowledge came the ability to identify himself as Oliver Norfleet, a young American nearing the age of twenty-six, whose study and vocation was science. Finally he remembered the blight, his efforts against it, and what had befallen him at its very center.

Someone—Spencer DuPogue, the traitorous colleague who was now his enemy and captor—had struck him on the head. The weapon had been heavy metal, the massive nozzle of the atomic torch. After that, what?

Norfleet's recollections, over which his head ached the sharper as though it found trouble making room for them, took him back to the coral-walled laboratory, his refusal to change sides, the thrashing he had given DuPogue with his fists. That last item had been worth while. Norfleet smiled, and felt that he had lips, able to twitch into a curl of satisfaction.

"He's coming back to life," said a familiar voice from a seeming distance.

Coming back to life. The words helped him to yet another memory. DuPogue had proposed to kill him, then restore him through use of the blight-nucleus derivative. Was that what was happening? If so, DuPogue's process was slower and more irksome than the one he, Norfleet, had devised. And had the blight doomed him to destruction, disintegration, if he wandered from the sphere of its influence?

"Is that you, DuPogue?" he asked thickly.

A chorus of glad cries answered his achievement of speech, and he opened his eyes and looked up.

He was in a dim room, not pink or red or cherry, but pale buff kalsomine, at wall and ceiling. Close above him swam or bent a face, bearded and concerned, the face of Louis Pasteur.

"*Morbleu,* he recognizes me!" exclaimed the French scientist joyfully. "Come, you others, our Norfleet is his own man again! He has returned to us!"

Norfleet sat up, his head aching more sharply with the effort, but his limbs felt stronger for moving. He was in bed, in his own room at Kansas City. Pasteur was feeling his pulse, his manner very much that of the traditional family doctor. Over the little Frenchman's shoulder towered the august head of Charles Darwin, and at either side stood Newton and Caris Bridge.

"How did I get here?" demanded

Norfleet. He thrust his pyjamaed legs over the side of the bed, and stared from one face to the other. "DuPogue had me—"

"*Ah, oui,* but we got you back again," Pasteur told him triumphantly. "Darwin and I, in Edison's rocket ship, flew after you."

"But DuPogue killed me! And I'm alive, with the blight-substance in me!" Norfleet almost yelled out the realization, then lowered his voice. "It's a curse, that kind of life."

"Curse?" repeated a soft voice. Marie Curie had come into the room, and was standing at his bedside. Her hand touched his aching skull. "We have all been cursed, then, my young friend."

IT was true, Norfleet realized. DuPogue, in trying to put him into a state where he would have to join the blight's forces, in reality was unable to make him any more of an outcast than these others. A new thought came. He was one of them now, in fate if not in power—one of the warriors of science who, in destroying the blight, would unselfishly destroy themselves. A sudden great joy came to him as he recognized that kinship. He began to rise.

"Do not exert yourself," Pasteur was pleading, but Norfleet felt strong and steady. He got up, and shook his head to clear it.

"If I'm one of you now—" he began slowly.

"Yes," Madame Curie said at once. "You are one of us now." She held out her hand. "Comrade!"

Norfleet took that slender hand, and Pasteur hugged him impulsively and Gallicly. Darwin grinned as if welcoming him into an honorable society, and Newton said something about being greatly honored.

"Speech!" cried Edison, the last to enter the room. All applauded merrily.

Norfleet smiled embarrassedly. "Perhaps I've been rather mysterious about my reactions," he began, "but I must confess that the thought of you all—exerting yourselves to the utmost against your one sure source of life—made me feel guilty. For I realize that when the blight goes, so do you gallant five. I was sacrificing you to save the world, to save my own precious blood and bones. But now—"

"Permit me," Pasteur butted in hastily. "Now, as you see it, you have as much to lose as we, as little to gain as we. And, instead of being horrified, you are glad."

"Exactly. We can work together without embarrassment or difference. But how did you guess?"

"*Attendez, mes braves,*" Pasteur harangued the others. "You have heard what I hear, you have seen what I see. I present to you a man of courage and unselfishness and soul—Oliver Norfleet, worthy to sit at the head of any table!"

Again he caught Norfleet in his arms, and planted two hairy kisses on the young man's surprised cheeks.

"Huzza!" bellowed Newton, in Georgian English fashion. "From the first, I knew this lad to be a match for any in pluck and spirit!"

Norfleet's head ached no longer, but swam with pride and happiness. The knowledge of his doom was also the knowledge of his greatest triumph. What better company than this in which to fight and die? Solomon had been wrong, wrong. A dead lion was far better than a living dog.

"Excuse me," said Caris Bridge. "I don't want to intrude upon the program of this Dead-Already Club; but perhaps a slight drink would be in order."

She had gone from the room in the midst of the hubbub, and now was returning with a tray, a decanter and glasses. Quickly she poured wine for all. Pasteur proposed a toast to Norfleet, and all drank. Newton and Darwin shattered their drained glasses upon the floor, as though they had just drunk the health of the sovereign of England. Afterward they departed, enjoining Norfleet to rest and be quiet.

BUT he found it impossible to lie still. Rising, he took a shirt and flannel trousers from his wardrobe, and dressed. Finally he went and looked from the window. It was evening. A knock sounded at the door, and Caris entered.

"What shall I bring you for your dinner tonight?" she asked.

"I'm coming down to dinner," he replied heartily, "and I'll eat what the

rest are eating, perhaps a little more than they. DuPogue's blight-treatment gave me an appetite. Now, Caris, tell me something that I haven't had time to ask about. How was I rescued?"

"Pasteur and Darwin did it. When you were gone, with the acid-bearing boots, it was easy for them to deduce what had happened. So they stole Edison's atomic ship, just as you had stolen the boots, and flew after you."

"How did they know just where I had gone into the blight?"

"They didn't know, exactly," replied Caris. "But they began a sort of spiral tour of the area—that ship can go with tremendous speed, I hear. They cruised around and around in a narrowing circle, covering every section, until they came in close to the center. There, they said, was a funny T-shaped building."

"DuPogue's headquarters," nodded Norfleet.

"Darwin stayed at the controls, ready for a quick take-off. Pasteur got out and walked in at the front door—barefoot, so that his shoes wouldn't be eaten by the blight."

Norfleet looked at her sharply. "How did he know he was immune?"

"Apparently they have all known for days, but never thought it worth mentioning. They knew, too, that without the blight they'd be done for mighty quickly. Madame Curie figured that out, at Pasteur's first attack."

"Yes, she told me. And I puzzled out the rest, but I guess I wasn't any wider awake than Pasteur and Darwin. Go on: Pasteur entered, found that DuPogue had killed me and was restoring me to life. What then?"

Caris studied him for a moment. Then, without continuing the narrative, she asked a question.

"Would you feel better, Noll, if they'd got there—well, a trifle sooner? If you hadn't been killed yet, or brought back to life, if you were as you had been to start with?"

Norfleet smiled. "What difference does that make, Caris? As it happens, I did get killed. I remember how Spence batted me over the head. It would have cracked the skull of an ox."

"But, if you thought you could survive after the blight was gone—"

"I won't fool you, Caris. It would be sweet, I know, to win this scrap hands down, and then live to be an old man in a safe unblighted world; but, things being as they are, I feel exactly as I said a while ago. I'm one of the bunch now. If they die by winning, so do I. If my life span is cut down, so is my embarrassment."

"You make me embarrassed, too," said Caris, in strange confusion. "Sort of left out."

HE put his hand on her shoulder, shaking her in familiar, comradely fashion. "Forget that, Caris. DuPogue was restored by the blight, but he's gone over to the enemy—I'm afraid he was that kind of man from the start. Well, it'll be his ruin, and a dishonorable one. We others are going to snuff out a little ahead of the usual time, too. That will leave you. When it's over, go and make a report. Make it in the form of a book, the most thrilling book ever written. You'll be a sole survivor, with time on your hands. And luck go with you, old girl."

Confusion was thicker upon her, and he thought that she might even cry. Comforting her, he felt better than he had felt in all his life. The blight seemed less a menace, the coming decisive struggle more bracing in prospect, the victory already assured. And death, even a disintegrating death such as Madame Curie predicted for blight-modified tissues, only a greater final adventure.

"Come on," he cheered Caris, "let's go down to dinner. What's on the menu tonight?"

"Not so fast, fella!"

The new voice, hoarse and threatening, came from the direction of the window. Both turned to look.

A man swung himself in, apparently from a climb up the water-spout. He wore rough clothes, his face was lean and his eyes shifty. In his hand was an object like a perfume atomizer, of pink-lavender substance like enameled metal.

"Don't move, you two," he threatened them, "or I'll let you have a gob of this stuff right in the kisser." He leveled his atomizer like a pistol.

"Who are you?" Norfleet snapped.

"Never mind who I am. You know

the guy who sent me — Spencer DuPogue. I'm here to do a little job for him, and you two are going to help me."

CHAPTER XIX

DuPogue's Henchman

NORFLEET stood still. Caris moved only to put a hand upon his shirt-sleeve. Both looked at the newcomer, more in curiosity than in fear.

"Just what are you trying to get away with?" inquired Norfleet, as he might have inquired of a prank-playing boy.

"See this here gadget?" The intruder wagged his atomizer. "Well, it's loaded right up to the peak with blight juice. If I spray it on you—"

"Wait a minute, my friend," cut in Norfleet contemptuously. "I gather that you're one of the specimens that DuPogue revived for his own use. Can't say that you're a very attractive sample. But do you know who I am?"

"Yeah; Norfleet's the name."

"Then you ought to know that I am immune to that stuff. DuPogue killed me and brought me back to life, just as he did you. Has he told you that, or aren't you in his confidence? Anyway, the stuff you've got in that squirtgun won't bother me any more than a whiff of rose water." Norfleet moved a step forward. "I think I'll take it away from you."

"Wait, wait!" called the other so sharply that Norfleet actually waited. "Okay, you say it won't hurt you. Maybe you're bluffing, maybe not. But the dame can't take a slug of it, can she?"

Caris clutched Norfleet's arm tightly, and he felt her trembling.

"Let me go," he whispered, but she only clung the tighter.

"You two stay together, right like that," ordered their visitor. "If you make a single funny move, brother, I'll let your dame have a snootful of this blight juice. It'll eat her away to the neckbone while you're adding two and two."

The man looked as though he meant it. "I didn't come all this way to be shoved around by any smart guy," he went on. "I got a special chore, and I'm going to do it."

"What's that?" asked Norfleet, standing quietly and thinking hard.

"There's lots of plans and notes down in the cellar of this dump, ain't there? Well," and the lean face wrinkled in a grin, "DuPogue wants them notes burned. He don't like what's being done around here. So I'll tie you up, Mister, and me and the dame will go down there and have a bonfire."

"You'll never get away with it," Norfleet said.

"Don't give me no more arguments," growled the man with the blight-thrower. "I'm here to destroy them plans, and I'm going to do it."

"Really?" said a cheerful voice from the window through which the fellow had just come.

It was Sir Isaac Newton, climbing sturdily up the waterspout.

"I am not yet fully conversant with the slang of this twentieth-century America," he went on, putting a stockinged leg over the sill, "but methinks the proper inquiry is, 'You and who else?' "

THE astounded interloper swung around just as Newton rose to full height at his elbow. With a howled oath, he discharged his pinkish atomizer-weapon, full into the smiling face of Newton. The next moment Norfleet had sprung upon him from across the room, clutching his elbows with a grip of iron. Newton, without losing his smile, seized the blight gun and twisted it from the hand that held it.

"I saw you climbing," he observed, "and thought it best to let you go inside, the easier to be trapped."

A moment later Norfleet had flung his prisoner down, and set a hard knee on his chest.

"Are you hurt, Noll?" Caris was crying anxiously. "Or you, Sir Isaac?"

"Neither of us," Newton assured her. "As Norfleet himself told this uninvited guest, the blight substance is no more than rose water to a constitution already inured. See, it evaporates like sweat. Verily, I feel more refreshed than otherwhat. Only my poor wig."

He pulled it from his close-cropped head. "Being of normal hair, it is fastened upon by the hungry blight. My dear lady, will you touch a match to the fire laid in yonder grate? Thank you."

Upon the rising flames he flung his infected wig, also the spattered frill at his throat. Both blazed up like tinder. "And now," continued Sir Isaac to Caris, "will you be so good as to ask my friends Darwin and Edison to step up here? Leave Pasteur with Madame Curie, that she will not distress herself."

Five minutes later, the two scientists asked for stood with Norfleet and Newton in the room. The prisoner, his wrists tied behind him, glared helplessly but defiantly.

"G'wan!" he raged at them. "I ain't a squealer. You can't get no information out of me."

Newton was examining the blight-gun. "A most ingenious device," he commented. "Unfortunate that we must destroy it lest it infect a new face of Earth—aye, and unfortunate that we must destroy its creator, Master Du-Pogue."

"You'll never get him," insisted the bound man harshly. "You won't make me talk, either, not if you kill me."

Darwin combed his big beard with long, strong fingers. "This fellow has spirit worthy of a better cause," he remarked thoughtfully. "A pity that we must break it."

"But break it we shall," added Newton grimly. "Let us take him out to the barn."

They did so, carefully avoiding Caris, Madame Curie, and Pasteur, who were in the front of the house. There, between the bench and the great goatlike rocket ship in which Norfleet had been borne back to safety, they stood him, still bound. Newton poked around among stacks of rubbish.

"Ah," he murmured, dragging something from among a huge pile of metal scraps. "Here we are."

HIS prize was an old cylindrical tank of galvanized iron, once part of an old-fashioned heating system. It was six feet long and two feet in diameter, and its top, now detached, had a length of two-inch pipe extended from it.

Newton stood it up on end. "Now," he directed, "put this rascal inside."

"I think I catch on," said Edison suddenly, and helped to lift the bound and wriggling form into the tank. The prisoner's thin face still showed defiance.

"Go ahead, shut me up in here," he taunted them. "I said I wasn't afraid to die. I'll smother, and be out of it quick."

"No," said Newton, "you will not smother." He picked up the top of the tank. "Help me put it in place, Edison. We'll weld it on—but leave the pipe open."

"Then what?" asked Norfleet.

"Then we bury it, here in the earth under the barn floor," Newton informed him in a hollow voice. "He can have air through the pipe, but no food or water. Perhaps, after many days, we will not even hear his cries."

"You wouldn't dare!" shouted the man in the tank, and then they closed him from sight with the lid.

Norfleet alone stood aghast. Were these cold-faced, heartless threateners his heroic and enlightened scientific ideals? He half opened his mouth to plead for mercy to the captive, but Edison, looking up, caught his eye, and winked. It was a merry wink. Newton, too, smiled and laid a finger to the side of his nose.

"Have you the welding torch, Darwin?" called Edison, loud enough for the shut-in captive to hear. "Ah, yes. Here by my hand. It will take only a minute to do the job."

From the bench he took, not a torch, but a small cylinder of compressed air, with a valve cock. The others smiled as Edison set the nozzle against the rim where top and tank joined, and turned on the air. It made a swishing roar, terrible to hear; enough to convince any man who, his vision shut off, waited for the sound of a welding flame.

Still smiling, Edison drew the fierce-roaring swish slowly along the rim of the cylinder, inch by inch. None spoke or moved, but suddenly a clamor broke out, louder than the rush of escaping air—poundings from inside, and muffled, pleading yells.

"He has changed his mind," whispered Darwin, and motioned for Edison

to close off the compressed air. Then he raised his voice: "What now, in there? We thought you were resigned to your burial."

"Don't seal me up," begged the suddenly shaken voice of the captive. "Let me out; I'll tell!"

They hoisted off the top and, tilting the tank upon its side, poured the bound man out like beer from a bottle.

"Tell, then," Edison bade him, "and quickly, or back you go."

He talked. His name was Leeford, Tam Leeford. There were nine beside himself restored to life by DuPogue—four other men, and five women. They looked up to their master as a fount of almost godly power, for they had been chosen from among the obscure, limit-brained dead—easy to guide, easy to convince, easy to intimidate. At his command, they stole their own clothing and money for their work of spying and sabotage routine for him in the outside world. They operated just now from a pair of auto trailers in a tourist camp near Wichita, Kansas.

DUPOGUE, it seemed, was interested particularly in maps showing ponds, lakes, and marshes, with exact distances to the center of the blight area. In answer to a question voiced by Norfleet, the ten were not spreading the blight on their own account. Indeed, DuPogue ordered them to guard against any careless use of their various blight-bearing tools. The spreading was to come later, and tremendously, too sudden and huge for human resistance.

It was all told too quickly and abjectly to be anything but the truth, especially from so limited an intelligence.

"Those maps of the watery areas," Norfleet pondered, "what are they for?"

"I don't know, Mister," protested Tam Leeford. "Honest, I don't. The boss, he never told me."

"But I can tell you," volunteered Darwin. "It sounds like an artillery map, with ranges and special targets; the ponds are the targets, the distances the ranges."

"Exactly," agreed Newton, nodding his cropped head. He was still scrutinizing the captured blight gun. "Weapons like this, but far larger, throwing pellets or masses of blight into quiet, wet regions—"

"Could spread the blight everywhere," finished Norfleet. "We've got to stop him."

"Exactly," said Newton again, and he spoke as though he thought it could be done.

"On to Wichita, then," chimed in Edison. "We'll swoop down on that spy depot in the trailers first. Let's call Pasteur and tell him everything. Lock this chap in the coal-bin down cellar, and let Caris Bridge keep guard—she's as trustworthy as any man."

"I'll start the car immediately after supper," offered Norfleet. "We'll drive tonight, and be there early in the morning. Attack at dawn. Pasteur, Edison, Newton, Darwin—"

"Wait," said Darwin, in a strange breathless voice—so strange that all looked up inquiringly.

"Perhaps," he went on slowly and weakly, "I will not be able to go with you."

"Why not?" asked Norfleet, and they all saw, rather than heard, the answer.

Darwin had gone suddenly pale; no, he was beyond pallor. He was transparent, like gelatin, like albumin—a ghost standing there in their midst, and fading fast into invisibility.

"I think that my time is past," came Darwin's voice, as though muffled and distant. "The life force has spent itself in me, and I. . . ."

The voice trailed away.

"Gad, it's true!" cried Newton. "He stayed in the ship while Pasteur ventured out alone to rescue Norfleet. He had no direct contact with the central blight substance. And now—but look!"

Only the faintest shadow, like an imperfect photographic image, remained there among them; but a smile showed brightly, in the last indication of the apostolic beard. A huge hand lifted, almost in a gesture of benediction. Then there was a slumping fall.

The others started forward. The black clothes that Darwin had worn lay slack and empty upon the floor of the barn. The body within them had vanished, like frost in the heat.

Norfleet trembled, his face quivered. Edison's hand clutched his shoulder.

"Steady, son," Edison cautioned.

"It's all right—and he's all right, too, where he's gone. Did you see him smile and signal? He felt that he had done what he could, and that he could trust us to carry on. He went happy."

"And without pain," added Newton. "The work remaining must go forward, with the rest of us failing not."

CHAPTER XX

The Sack of the Trailers

THE Tidy Grove Auto Camp, ten miles east of Wichita on the national highway, was neither tidy nor a grove. It bordered on a grass-margined slough that the proprietors called a lake, and was sparsely set with dusty looking cottonwood trees. It was almost deserted in the early dawn as Norfleet's big car purred to a halt at the end of the driveway and the party got out.

Norfleet and Edison had pistols, equipped with silencers, in their hip pockets. Sir Isaac Newton having lost his eye-arresting wig, had changed his smallclothes and frills for rough dungarees and a hickory shirt, but he still wore his buckled shoes, while around his waist was belted a weapon he understood—a cavalry saber that dated back to the Civil War. Caris had purchased it for five dollars in a Kansas City curio shop, and it was rusty but ground to a fine edge. Pasteur carried a fine double-barreled shotgun that once had belonged to DuPogue.

"Those must be the trailers," said Norfleet, his gray eyes catching sight of two streamlined hulks set side by side at the rear of the camp tract, where some willows lined the edge of the dull water.

He and Edison drew their pistols.

Near them was stationed the only other camper, a blond young woman with a slack but pretty face. She had pitched an old army pup tent and sat in gingham on the running-board of her light car, drinking coffee from a granite cup.

"Hey," she addressed them nervously, "what's all that artillery for?"

"We're going to make a moving picture," Norfleet replied at once.

"Then where's your camera?" The blonde was on her feet, her eyes full of suspicion. She looked like the type that would call a policeman.

"This is only a rehearsal," Norfleet made haste to explain, and took a precious moment to pretend an appraisal of her not unhandsome person. "You know, Miss, you're a rather good type. How would you like to be in pictures?"

"You think I'd be any good?" she asked, interested but not thawed.

"I think you'd be splendid," he assured her. From his pocket he took a five-dollar bill. "Here's a sort of retaining fee. Later, when the sun's up and the cameras come, we'll want to use you in a small part—but sit down just now, and don't bother us while we go through the preliminary rehearsal."

She took the bill and put it into the front of her gingham dress. She was studying Edison now, the wide eyes narrowing.

"Say, Mister, I've seen you somewhere," she announced. "Your picture, anyway."

"I am an actor, my dear young lady," Edison explained plausibly.

"You look more like Thomas A. Edison," she insisted, frowning.

Norfleet's heart sank, but Edison bowed with a flourish. "I take that as a great compliment, Miss. You see, I spent hours on this makeup—I am playing the part of Thomas A. Edison in this picture."

AT last they got away from her, and approached the trailers.

"One of them will have the women, the other the men," muttered Edison. "But which?"

"We'll have to jump them both up at once," replied Norfleet.

"But if they resist?" said Edison at once.

"What if they do?" rejoined Norfleet. "Their weapons are blight-throwers, undoubtedly, like the one we captured last night. Those can't hurt us."

Edison was walking slower, as though he wanted to argue. "Blight-juice won't hurt me, or Pasteur or Newton. But you—"

"It won't hurt me, either. Did you forget I was killed and brought back

to life?"

Edison started to say something, then stared.

"I guess so," he agreed. "I forgot."

"Then we're all immune. And they won't be immune to the weapons we carry—guns and swords! Everything's on our side."

"Bravo!" Pasteur cried, almost loud enough to warn the trailers. "I am ready to fight. My father was a soldier of Napoleon—a chevalier of *la Legion d'Honneur."* His hands tightened on his weapon.

"You and Newton take the trailer to the left," Norfleet said to Edison. "Pasteur and I will tackle the other."

"Agreed," said Newton, and drew his blade from its scabbard.

They walked quickly to the doors of the trailers, two toward each. Pasteur, a little ahead of Norfleet, shoved open the door of the right-hand trailer with the muzzle of his weapon. Norfleet, pushing close behind, heard a shrill scream; the trailer contained four stupid looking young women, in various stages of undress. They looked only frightened, not dangerous.

"We're police," Norfleet told them on quick inspiration. "Stay inside and don't move—there'll be shooting out here in a moment."

He drew the door shut and turned toward the other trailer.

Cries and oaths rang from inside it, for Edison had also flung open that door. A man started to run out, a huge heavy-set brute who looked like a wrestler out of training. He struck at Edison with his fist, but next moment Sir Isaac Newton, licking out his saber like a flash of flame, had cut down the big fellow in a welter of blood, on the very door-sill. Another leaned forth, and in his hands was an atomizerlike blight thrower, like the one they had captured from the prowler at Kansas City. Pasteur, aiming with his shotgun, fairly blew the fellow back into the trailer.

"There'll be two more somewhere," cried Edison. "Look, there they go now!"

A pair of men had flung themselves recklessly from a window and were making for the muddy water. Norfleet and Edison fired at the same moment, their silenced guns coughing croupily. One of the men fell—it was impossible to say which of the shots took effect—and the other dived clumsily into the water. He did not come up, though they watched.

"Drowned?" asked Norfleet.

"It may be," said Pasteur. "Again, it may be that he swims under water, to reach safety beyond the range of our shots—hold! Danger!"

THE blonde who had first questioned them was running swiftly toward the scene of the battle. She was almost upon Norfleet, her face distorted with murderous rage. In her hand lifted a blight gun, pointblank at Norfleet's face.

"Not so fast, Mademoiselle!" shouted Pasteur, and sprang in front of the young man.

The gush of blight-substance bespattered the Frenchman. An unwomanly curse rose to the angry lips of the blonde, and she whirled away, as though to avoid capture. Her rush carried her full upon the sword-point of Newton, and she fell without a sound.

"Devil anoint me," gasped Sir Isaac, clearing his point. "I had not thought to slay a woman."

"She slew herself, *mon ami,"* Pasteur said. "She was one of them, set perhaps to guard; but we surprised her, and her mind moved too slowly to warn her friends. Well, we are masters of the field."

Edison had secured the weapon of the fallen girl, as well as that of the first man killed. Placing them carefully together, he burned them into vapor with a small but powerful atomic torch, afterward sterilizing the ground with the blast.

"They will do no more harm and spread no infection," he said. "As I surmise DuPogue's campaign, these underlings were only scouting for a great attack to come."

"Look, Pasteur," called Norfleet. "This blond woman—she's vanishing, like Darwin did!"

It was true. Her body gave off little puffs and curls of steamy vapor. A few moments ago she had been lively, even handsome, for all her enmity. Undoubtedly this was the girl of whom

DuPogue had spoken to Norfleet. Now she was disintegrating before their eyes. As they watched, the process was completed. Only her gingham dress and high-heeled slippers showed where she had fallen.

"Death brings on the quick break-up of the tissues, I surmise," Edison remarked. "Let's have a look into the trailer, Norfleet."

Inside lay only tumbled clothing, some of it shot-ripped and bloody, where two blight-restored bodies had been struck down and faded away.

"At least," said Norfleet, "there'll be no embarrassing corpses to explain if the police come."

Edison was examining a framed rectangle on the wall. "Look," he bade his friend.

"A television screen!" exclaimed Norfleet.

The close-woven expanse of silvery metal had a pinkish gleam to it, indicative of the blight modification from which it must have been made in DuPogue's workshop. And it was lighting up, giving off flashes of radiance. Edison and Norfleet watched silently. Something took form there—the head and shoulders of a man.

"Spencer DuPogue!" said Norfleet.

The eyes of the image sought him.

"Yes, Noll," said its lips. "Me. Congratulations on your little victory. Pity you won't ever profit by it." The eyes snapped defiantly.

"Save your sympathy," Edison replied. "We've killed four of your people and captured all the others but one."

DUPOGUE'S reflected head nodded. "I know. I'm able to watch, by television. If you're interested in the plans they were making, you'll find 'em there on a sideboard. See what you're in for."

"What do you mean?" demanded Norfleet. "You think you can—"

"I know what I can do. My men reported to me, by this same television, last night. They didn't do all I hoped for, but they did enough. Glory in what you think is victory, if it pleases you; you've got only a short time for glorying!"

DuPogue was plainly lashing himself to a frenzy. His face leaned forward, almost as though it would project from the screen.

"You're helpless already," he railed. "Nobody can enter the blight area—not now. I muffed it once, but the experience taught me. Wait, and see what I'm going to show you!"

His likeness faded from the screen. Another image flashed in its place, a red valley, filled with blocky houses of russet, pink and crimson. Around them moved the grotesque creatures of the blight, intelligently and busily.

"My capital," DuPogue's voice came, as if in explanation. "My home here—my laboratories, workshops, arsenals. And the things you know about, the living creatures, aren't dull animals any more, not even savages. They're intelligent, tireless, united—learning in moments what man learned in centuries. Keep watching!"

A new scene replaced the old one—a plain this time, red as usual. Upon it, a heterogeneous muster of the blight creatures, in all their nightmare shapes, but armed with riflelike weapons and busily drilling! Yes, forming squads, marching and wheeling, under the supervision of leaders who acted as officers.

"My army, only a small part of it," DuPogue's transmitted voice informed. "I've myriads, on every hill and hollow. We're getting ready to fight Earth's soldiery on more than equal terms. As for those spies of mine you destroyed, I'll have others within days, as soon as I slip out and rob another cemetery. And now, one more flash!"

The screen showed them cannon, or worse than cannon, around which toiled demoniac crews, a hundred to each piece.

"I'm mounting my blight-throwers," DuPogue cried exultantly. "How do you like my little theatrical entertainment?"

"Thanks for the word," Edison replied to the voice. "Theatrical it is—showy and tawdry. You're vain and overconfident, DuPogue. It'll be your downfall."

"Do your worst," added Norfleet. "We'll be ready."

"You think you'll be!" DuPogue's face was back in the screen, and his

voice had become a raving roar. "But in six days—just six, remember—hell's going to break loose. I'll bombard you with blight, make a dozen areas sprout up, each as big and hungry as this one that has already exhausted Earth to check. Better say your prayers, you and the rest of the world—because I'm going to win!"

THE screen went blank and dull. Edison and Norfleet looked at each other.

"If that's what the blight does to a man by frequent contact," stammered Norfleet, really shaken, "I'm glad that I'm going to die without any more experiences."

Edison smiled and tugged at his eyebrow. "Well said, my friend. Let's go out and see what the others think of the situation."

They walked to the door. Pasteur stood there alone.

"We'll hitch this trailerful of captured women to the back of our car and take it along," decided Norfleet. "Where did Newton go?"

Pasteur pointed silently. On the ground lay limp, scattered objects—shoes with steel buckles, a saber, a pair of dungarees.

"He faded away before my eyes, during the minute you were inside," the Frenchman informed them solemnly. "Yesterday's splash of blight refreshed him only temporarily. Now he is gone."

"In heaven's name, why didn't you call us?"

"I had to listen. He insisted. His last words were instructions—a full and careful reminder of how to complete his work." Pasteur drew from his pocket a folded bit of paper and a fountain pen. "I had best make notes at once, while the words are fresh in my memory."

"God rest his soul," said Norfleet. "It's like that old war poem—about the torch being thrown from falling hands, to be carried on by the living. But what are these instructions of his? What's the work to be completed?"

Edison picked up Newton's sword and cradled it across his forearm.

"We haven't had time to tell you yet, but now we'd better. In the last few days—while you were senseless, after the rescue from DuPogue—we finished our plans, and almost finished the work, on the weapon that will destroy the blight."

CHAPTER XXI

The Beginning of the End

PRISONERS — four women and one man — were turned over in strict secrecy to certain agents of the Federal Bureau of Investigation. The operatives, though amazed and incredulous at Norfleet's brief word on certain strange characteristics of the captives, yet remained close-mouthed and respectful; the Board of Science had spoken to the government, and the government had spoken to its G-Men.

Afterward, there was a council on the screened back porch at Kansas City —a back porch not so crowded since two of the chairs had been carried back into the house. Caris Bridge poured tea into five cups only, and she looked solemn and subdued. She had liked Darwin and Newton immensely. Marie Curie, herself very grave, put out a hand to touch Caris' arm. The touch conveyed comfort and serenity.

"*Que diable,* our ranks make to dwindle," mourned Pasteur, staring into his teacup. "Two gone in two days."

"Yes, but full five are left," Madame Curie reminded him stoutly. "Also, our last hours should be our best. You, my friend, have been strengthened by that journey to the heart of the blight. I was the latest restored, and Edison next latest."

"No," said Norfleet, "I was restored latest of all."

"In any case, I feel fit and ready for work," finished Madame Curie.

Norfleet felt glad to hear her say it.

"Edison," he said turning to the inventor, "after our raid on the tourist camp, you promised to tell me of certain weapons you had been perfecting."

"Of course, of course," was the reply, and the bushy brows cocked. "You others are ready?"

"Ready," said Madame Curie.

"*Toujours prêt,*" smiled Pasteur.

"Then," went on Edison, "I will call upon Madame Curie to state her premise, whereon we based our final decision as to the best course to follow."

Madame Curie sipped tea. "I remind you, my young friend," she said to Norfleet, "that once I compared the terrible red sickness of Earth to a creeping, growing cancer."

"I remember," replied Norfleet. Again the dreadful name of the disease made his blood run chill.

"Well, the consideration extends itself logically. There is but one way to treat so critical and fatal an ailment, when it has progressed thus far."

"Yes," Caris tried to prompt the speaker. "And what is that?"

"Excision."

Pasteur applauded, as though at the climactic speech of a dramatic play. "*Bien sûr,* what else? Excision it must be, indeed!"

But Norfleet was struggling beyond his depth in this welter of comparisons. "Excision, Madame? You mean, to progress as though Earth were a patient and we surgeons, to cut away an affected portion of the body? But how, when that portion is a disc many miles across, and perhaps extending downward to the very center—"

"Come, it is not as bad as that," broke in Pasteur. "Darwin studied well the ailment before he vanished from us. The blight has indeed struck downward but not too far. It holds better to the surface."

"At any rate," put in Edison, "it has not struck as deep as the hard mineral layers beneath the loose crust of top soil."

NORFLEET absorbed this information, but it threw little light upon the greatest question that had risen in his mind.

"To take away the blight area, be it ever so shallow, is to strip away thousands of square miles of surface," he argued. "It must be cleanly done, and at the one time, and the infected material destroyed or otherwise disposed of. In the name of science, how?"

Pasteur took from his pocket the paper on which he had scribbled Newton's last instructions.

"Here is a part of it," he told Norfleet. "This good Edison has more to contribute. And Madame Curie, without doubt, can check against both our observations. It will amaze you, but I stake my beard that it will convince."

Norfleet turned to Edison, who again took up the explanation.

"This cosmic operation, as Madame Curie has visualized it and as you in some degree understand, involves a circular cut to divide the infection clearly from the healthy substance, and then a peeling away of that divided area, and finally a disposition of the excised part so that it cannot touch or otherwise communicate its ailment to the great proportion of Earth as yet free. You agree?"

"So far," nodded Norfleet.

"Very well," said Edison, in the manner of one who has succeeded in making an important point. "Bear those things in mind. Such a project, though already compared to a surgical operation, is nevertheless of such magnitude that it becomes an engineering operation instead."

"Exactly," Norfleet made haste to agree, "but an engineering project beyond all precedent. It would take thousands of workmen, and digging apparatus better than anything ever devised. How can the five of us—"

"*Doucement, doucement,*" Pasteur soothed him. "Do not become upset, I pray you."

"Let Edison finish," seconded Caris.

"I'm glad you stated the problem so clearly," Edison said to Norfleet. "How can five of us do the work of thousands? I give you the answer from your own words—'digging apparatus better than anything ever devised.' That, Norfleet, is what we have been getting into working order while you've been so busy visiting the acid-spraying forces, invading DuPogue's stronghold, lying senseless after being hit on the head. You've been missed in the work, but we did pretty well."

He paused, and unfolded papers of his own.

"Here are plans for an atomic rocket-ship."

"You mean the one that carried me out of the blight area?"

"Not at all," said Edison. "That was

only a small model of the big one we were devising, putting together for this very job of cosmic surgery. It's been carefully assembled, in hiding near Fort Riley. The Board of Science gave us some trusted, efficient workmen and —well, look at the specifications yourself."

OLIVER NORFLEET did so. They were for an aircraft, shaped like a cigar or torpedo, with a rocket engine and blasts at side and rear. In the lengthwise-section drawing, the space for the engine was marked "atomic" and took up relatively a small proportion of the hull.

Two larger compartments were represented forward of the engine, with briefly indicated connections to the control cabin in the nose. There were also representations of motors, conduits and storage tanks. Norfleet saw legends—"compressor," "ray filter," "reflector," and others less understandable.

"I'll explain as you study," offered Edison. "This big ship contains a slicing arrangement that cannot fail. It is, in one word—neutronium."

"Neutronium?" repeated Caris, leaning over to see. "But that couldn't ever be lifted, not by the biggest, most powerful ship you could build. The weight of even a little neutronium would be unthinkable, even a gram of it."

"We don't propose to lift or carry it," replied Edison. "Only to make it." He pointed to the diagram. "Look closely. Ordinary air is drawn in here, to be worked upon by energy-rays—Sir Isaac's concept, and perfected by all of us. The ray action hyper-compresses, so to speak, the molecules of the air, reducing them beyond all power hitherto practical."

"It would have to reduce the atomic spaces, if you were going to make neutronium," pointed out Norfleet. "Collapse the molecules, draw their molecular charges."

"It does all those things," agreed Edison urbanely.

"But how would the neutronium stay in this tank?" And Norfleet pointed to that part of the diagram.

"It wouldn't—it doesn't. Air is piped in from above, let flow into the field of the ray, processed—and the neutronium dribbles out below, like water from a sprinkling cart. Meanwhile, the ship is encircling the blight area, cutting it completely away from the rest of Earth's surface. Because the train of neutronium, as dropped, will plow straight through the Earth's core. Soil, rock, metal—they will all be like cheese to that crushing weight."

He paused to let the idea sink into Norfleet's head.

"That being done," Pasteur took up the explanation after a moment, "the second stage of the operation is to begin. And, with the help of these final reminders of the excellent Sir Isaac," he spread out his notes, "I will venture to demonstrate. The other compartment represented there, beside the neutronium system, is for the generation of anti-gravity force."

NORFLEET shook his head in a hopeless return to mystification. "It's getting beyond me again," he confessed.

"For me, too," Pasteur assured him readily, "yet I did my little best to help, and Sir Isaac's last words make it finally clear. I reduce it to simplest terms—the force, turned as a field of rays upon the cut-out slice, inhibits the normal gravity that holds that same slice with its devilish blight to Earth. Imagine gravity, if you will, as a radiating host of threads, binding all things close to the center of Earth; and Newton's neutralizing power dissolves that hold, severing the threads, as it were."

"What then?" asked Norfleet, beginning to appreciate.

"Only one thing can happen. The spinning thrust of Earth's revolution upon her axis at a speed of a thousand miles an hour, or a mile in less than four seconds, casts off that great mass of stuff as though it were a loose cobweb. Oh, not all of it; far down are rocks, and veins of tough metal, and below them the semi-plastic material of the outer core—all held together and to the center of our planet by strong cohesion. But the loose crust, into which the blight has bitten, will go sailing away. It will fly off at a tangent, crumbling and crumpling into a sphere, a new little planetoid of redness with

a diameter of perhaps twenty or twenty-five miles—ready to eat itself out in space."

Norfleet had happened to glance up, his eyes roaming into the yard. What was that movement under the shrubs midway to the barn? He half rose, half made to speak, but Pasteur broke off his explanations and caught him strongly by the wrist.

"And now," Edison began again, strangely clear and loud in tone, as though addressing a public meeting, "to set the zero hour for all these activities."

Norfleet again fixed his eyes on that strange stir in the bushes. He was increasingly sure that something, or someone, lurked there. But Pasteur still clutched him by the wrist, as though to command silence. Edison continued, in the same extra loud manner:

"DuPogue told us, in his television interview, that he proposed to make his coup six days hence. He could hardly be defeated if that coup was once effected. It behooves us, therefore, to move ahead of him—make ours in five days."

His discussion could be heard as far away as the barn, certainly by whatever spy might be in the bushes! Norfleet felt as though he would go mad with apprehension. But Pasteur was holding him with both hands, thrusting his beard close to Norfleet's ear.

"Do not speak or move!" came his low, beseeching whisper. "You must remain absolutely silent."

The eyes of Madame Curie caught Norfleet's, silently and eloquently commanding.

"On the morning of the fifth day, then," pronounced Edison definitely, "we destroy his blight, and him along with it. Previous to that, on the morning of the fourth day, we will effect, through recommendation of our Board of Science to the government, the evacuation of the guards and acid-sprayers. Otherwise they will be injured. Of course, care must be taken that DuPogue not learn of that relaxation of our defenses. Then, on the fifth day—as I have said—we will move and win, before he gets his own attack under way."

At last the hidden figure crept from the shrubbery, a shabby and furtive man. Norfleet had seen him before; he was the single fugitive from the raid on the auto camp. He rose to a crouch, ran swiftly around the corner of the barn, away from sight.

"Ah, he is safely away," said Madame Curie with deepest satisfaction. "All is well."

Pasteur relaxed his viselike grip, and sank in his chair with a sigh of relief. Norfleet sprang up, the almost hypnotic restraint gone from him.

"Are you all mad?" he scolded. "That was a spy of DuPogue's, and he heard every word. I'd better follow—"

Both Pasteur and Edison laid hands on him again, pushing him back to his chair.

"*Mort de ma vie,*" the little Frenchman was chuckling, "I am doubly relieved now. I feared, my dear Edison, that your device had failed. Since it was so immediately understandable to me and to Madame, it might not deceive the eavesdropper; but if Norfleet was taken in—"

"What's it all about?" groaned Norfleet, who was becoming tired of the succession of mysteries.

Caris, too, waited with wide, perplexed eyes.

"Listen, my children, and you shall hear," smiled Edison. "The spy's well out of earshot now, so it's safe. Remember, Norfleet, how careful DuPogue was to say, via his television, that he would make his attack in six days?"

"I remember well. He was crazy to tell us."

"To quote the old Yankee saying, as crazy as a fox. He wanted us to arrange our defenses for six days hence; naturally, he intends to attack sooner. It's obvious."

"Now that you explain, it is," Norfleet agreed. "But now his spy will tell him that our move is set for the fifth day—"

Edison nodded, and his smile grew broader. "Exactly. And that we will clear the besiegers with their acid-sprays from the rim of the blight area on the fourth. That fourth day, then, will be the ideal time for DuPogue to start his own offensive, in advance of

our expectations."

"I see that, too," Norfleet almost wailed. "What good does all this do?"

"It assures us that DuPogue will attack on the fourth day."

"But—"

"But, since his spy is well on the road back to headquarters, I can tell the final truth. We attack, not on the fifth day, but on the morning of the third—twenty-four hours ahead of DuPogue."

CHAPTER XXII

Takeoff and Tour

THE morning of the third day had come.

Among untrammeled looking hills of rock, tufted with bluestem grass and occasional scrub oak and willow, stood an immense and shabby shed, designed originally as a hangar for experimental army gliders that were flown from the surrounding heights. From it, during the night, a crew of mechanics—the "trusted, efficient workmen" of whom Edison had spoken—had dragged into the open that shed's huge and gleaming tenant.

Now it lay like an immense and symmetrical cocoon in the troughlike valley before its hiding place, shining grayly like scrubbed old silver, one hundred feet long by twenty in diameter with blunt, blast-perforated ends. In one side, close to the nose, was a hatchlike entrance panel, so closely set as to need a second and third look to locate. The ground crew was gone, and only five persons stood by the atomic rocket ship—three men and two women.

Marie Curie lifted one hand, as if in prayer. Her solemn voice rang out on the quiet air:

"In this moment, before this vessel takes flight, I christen it the *Tangent.*" She faced the others. "Pasteur, Edison, is all ready?"

"I hope so," muttered Edison, with a slow thickness of speech that bespoke fatigue. His strong face was gone pale. Norfleet came quickly to his side, but Edison made a gesture of reassurance.

"It is all right," he said, in a stronger voice. "Don't worry. Only let Pasteur and me present our—excuses."

"You—you aren't both going to—" stammered Norfleet. "Not at the same moment?"

"But yes," Pasteur assured him. He reached up a hand to lay it on Edison's square shoulder. "My friend here felt the weakness a day ago. I, stronger and more recently enlivened by my journey to the heart of the blight country, gave him of my strength. A simple transfusion of blood which we managed in his room—and we divided our last reserve of existence, were able to make almost an exact division. So now we go—together."

He, too, smiled reassuringly, but not so the others.

"But weren't you going to have a longer time than this?" cried Caris.

"It does seem so, *hein?*" said Pasteur calmly. "We should be disappearing in rigid order and time proportion, *n'est-ce pas?* But it does not happen so."

"No," elaborated Edison, paler still, but speaking as calmly as though discussing an impersonal point of science. "There are differences, perhaps in amount and manner of the life-substance administration—perhaps in the adaptability of the dead remains to receive the modifying influence."

"Perhaps," said Pasteur, cheerfully thoughtful, "each of us was allowed to remain only long enough to do the thing he must. First Darwin, then Newton, and now the two of us, with our usefulness departed—"

"Who will fly the ship?" Caris was asking Edison.

His lips were as pale as wax, but they smiled gently. "It is no trick at all, my dear. All necessary knowledge is included in the sheets of instructions we left in the control room. Nothing that intelligent persons like yourselves—"

NORFLEET almost sprang upon Pasteur. He clutched the little Frenchman's shoulders in his hands, and they seemed to be dwindling in his grip.

"This is unreasonable," he blurted violently. "Why shouldn't I be going

first, while you—wiser and more deserving—be left to finish the job?"

Pasteur's eyes were warm and friendly, even though the blood seemed gone from the face in which they were set. He put a shaky hand inside his coat and drew forth a sealed envelope.

"This is for you, my young friend," he half-whispered. "Take it." He thrust it into Norfleet's hand. "I have not time left to explain, but, when leisure comes to you, read what I have written . . ."

His voice was no longer audible. He was growing transparent, misty, though his bearded face was but inches away. Desperately, Norfleet threw both arms around him, as though to hold him by main force; but the solidity of the body melted even as he embraced it. Across Norfleet's lifted elbow something dropped and draped—an empty coat.

"Edison's gone, too," Caris was telling him in a voice that choked.

Norfleet turned to Madame Curie. His face was graven and wan, the quicksilver of his eyes had turned bright and solid. "We may not have many minutes left ourselves," he said, making the words come steadily. "Let's get on with the job. Can you and I fly the ship?"

"Yes, just as Edison said," she replied confidently. "The directions are inside. All that is needed otherwise, we have—courage and not inconsiderable wit."

"Then come," he said, and walked heavily toward the hatch-panel. He drew it open. Caris Bridge made as though to enter, but he stopped her.

"Wait. You stay here."

The girl was weeping, and struggled hard to get into the ship. He drew her several steps away, by main force.

"Listen, Caris, and try to understand. My days are numbered—my hours, perhaps—and so are Madame Curie's. We must take this desperate chance. But you—you have a long life ahead of you. Stay here. Something may go wrong, and you'll have to carry on."

Caris hugged him fiercely, her arms strong with hysteria, her lovely hair thrust against his cheek. Then her face, wet with tears, found his.

"Don't say that, Noll," she begged. "Don't. There's still something you've got to find out. You won't die. If you do, I'll—I'll throw myself into the blight!"

He shook her back into command of herself. "You'll do nothing of the kind. You'll live, and take up the fight where I leave off," he said severely. "Understand?"

She gazed at him as though she was seeing and hearing him for the first time. Then she nodded. He kissed her quickly.

"I am ready," called Madame Curie, and passed inside the ship.

Norfleet followed her without looking back at Caris.

IT is doubtful if the first appearance of the atomic rocket-ship *Tangent* occasioned any extreme interest. For one thing, the hangar from which it took flight was concealed from most casual eyes, located as it was among those waste hills of the government reservation at Fort Riley. And when it was once high in air it resembled strongly a dirigible airship, a great aluminum-colored cigar, and dirigibles were not too strange a sight there and then. It traveled much more swiftly than any dirigible, but at the height it flew such speed was not apparent. As for its atomic blasts, they were not clearly visible at the distance.

In the little cabin, no larger than a cell, which was the only open space among the great equipment of tanks, engines, batteries, and force-builders, stood two human beings. Norfleet was busy at a keyboard like the console of some tremendous modernistic pipe organ, each key stamped with a number. Before him, like music on the organ-rack, was a sheet with a column of formulalike jottings.

"Hit, in turn, the numbers of each formula," Madame Curie said from where she watched a great vision screen. "When you have finished a combination, note the time set to elapse before you begin the next. That sheet has our entire course plotted."

"I was scared," admitted Norfleet, "until I saw how simple they made it. A child could run it, if he had the nerve."

"The task of science is to simplify,"

said Madame Curie sententiously. Her blonde head stooped and her lovely face grew grave with concentration, as she labored with the dials and switches of the vision screen. "Ah, so," she said at last. "It is ready. Have you a moment to look?"

Norfleet finished his first string of letters, for the first course of the craft. Turning, he saw the screen.

It showed, as in a motion picture, a prairie landscape, far away and below. In the foreground sailed an aluminum-hued rocket craft.

"Why, we can see ourselves!" he cried.

"Yes. The viewpoint is beyond, and makes all our movements easier to survey and act upon. We can change that viewpoint — go farther away or, conversely, identify it with our physical position."

Norfleet returned to his control board, working out a second combination in swift but accurate fashion. The rocket craft seemed to stir under him as it changed altitude and direction. A barely perceptible vibration made itself felt.

"See," said his companion. "Our objective is in sight."

Again he stole a glance. The picture showed, afar on the changing horizon, a line of angry red. It was the blight.

Once more he began drumming out a combination of figures on the keyboard, like a "hunt and pick" performer on the typewriter. Like some "hunt and pick" typists, he achieved his end very rapidly. The vision screen showed that they were swinging in and around, ready to skirt the edge of the infection, the edge from which the forces of the acid-throwing military had withdrawn during the night.

"Are we in position?" he asked Marie Curie.

"Almost . . . yes. Now we can start the neutronium."

SHE suited the action to the word, drawing down a labeled lever on the wall. A new vibration possessed the ship, and Norfleet heard the purr of engines set in motion. He was able to leave his controls and look at the moving pictures in the screen—of the ship moving in an ordered curve around and above the margin of the blight.

"Where's the neutronium?" he demanded. "I don't see anything pouring out."

The face of his companion smiled faintly, and her blond head shook.

"Neutronium is colorless. But it falls. Look below."

The screen showed him the brown-black Kansas soil surrounding the vast red disease and, lengthening within it, a jet-colored line.

"We are beginning to cut the stuff free," said the woman at his side. "No, do not increase our speed. We want the neutronium to have time enough to make a continuous circle."

Norfleet, trusting the ship to follow its curve, watched the scene in the television frame—the swerving craft, its smooth, regular progress around the red land, the shadowy slit it drew along below it. Imagination gave him another picture — the Earth in cross-section, and the impact upon it of neutronium with a weight beyond any experience of the planet's surface since the beginning; the immediate and abysmal cutting of the trench, as swiftly as a stone might fall through air; down, down, through the crumbly top-soil, the harder-packed underlying dirt, the shale and sandstone that had once been the bed of Kansas' ancient inland sea, the buried treasures of metal and gems, beneath that to the undiscovered mysteries of Earth's secret heart. . . .

An hour passed, and part of another. "Look," said Marie Curie. "We have come back to where we began."

It was true. The circle was complete, the end of the slash had come to its beginning. Marie Curie seized the lever and raised it. The humming of the neutronium-making apparatus ceased abruptly.

"Send us inward and upward," she bade Norfleet.

He promptly began another combination on the keyboard.

The ship climbed, as an eagle climbs upward into the sky. It went high and higher, beyond the gaze of any who might watch. Miles of altitude piled upon other miles, forty miles upward, fifty. Again Norfleet touched his con-

trols, and the craft hovered in place.

"Help me now," Marie Curie requested. She beckoned him to a shelf where were set two tubes with eyepieces. "Look into them, and see if we are in position."

He did so. He saw a disk-shaped section of Earth's surface far below and, almost filling it, a red inner disk.

"The blight's just below us, evidently," he reported.

"Good. I adjust the field. Tell me when it is properly done."

She was turning a cranklike handle. Darkness began to thicken, to spread, in the round space he saw. It grew to obliterate the red patch, like the eclipse of an evil sun.

"Steady," called Norfleet. "I can't see a fleck of red now."

"Good," she said again, and turned to adjust other switches. "Now, look through our television."

THE ship was glowing. It emitted a halo of light, as strong as the sun and more golden. The anti-gravity rays burst forth in a great down-growing bloom, a cone of radiance.

All this Norfleet could watch in the screen, as though he were stationed afar; the ship a hovering capsule of silver, so high that the red circle beneath was dwarfed, a targetlike succession of varying shades of ruddy rings upon the brown and green of familiar Earth. Upon this disk of red fell the golden cone of shimmering rays, involving it exactly.

Earth, far below, must have throbbed and shaken. The cone of light, fifty miles high and eighty miles across the base, glowed brighter, stronger, full of corruscating motes. And the redness beneath churned and seethed like troubled water, suddenly flew to pieces —upward!

Norfleet hurried back to his own keyboard, finished tapping out his last combination. The sheet of instructions bore no more figures.

"What now?" he asked.

"We sail away," replied Madame Curie. "Our ship, the *Tangent*, becomes a tangent indeed. It flies off into space, and in the field of non-gravity it has created is caught the red blight-material. Look once again into the vision screen. That black blotch is the great pit where the blight once reigned. It is red no longer."

"Are we going away into space?" Norfleet pursued.

He was not frightened by the idea. But the blond head shook.

"No, only the ship goes. We are not needed to guide it. We drop back to Earth."

She closed yet another switch. A shock, a shiver. Norfleet seemed to lose weight and touch, almost went sprawling. The cabin whirled around, he lost sense of direction and felt his wits swim. Then all was clear again, and quiet.

"I released us," explained Madame Curie. "That switch threw our whole cabin free of the ship, and free of the anti-gravity field. We fall now toward Earth. A parachute is opening. Before long, it will lower us once more to ground, where not a speck of the blight remains."

He could not realize that the labor and strife were done. What had Edison said?—something about the blight-revived scientists going when their work was done. Well, he was weary. He would not mourn to depart.

His hand, sliding into his pockets, touched a piece of paper. It was the envelope Pasteur had given him. Drawing it forth, he tore it open. Inside was a single folded sheet. He smoothed it out and began to read.

CHAPTER XXIII

Afterward

NORFLEET read silently:

Mon cher Oliver Norfleet—

You will open this in the moment of victory. I know, though I write before our ship takes the air, that there can be no defeat for so righteous a cause.

I give you news of a greater triumph, which we withheld from you slyly, but for greater peace of your mind and greater profit from your labors.

Spencer DuPogue did not kill you, as you have thought. The life you have is not due to any action of the blight force. Darwin and I came along shortly after your capture. I fought my way into DuPogue's den,

through ranks of things that impeded but did not harm me. The most troublesome I drove back with a high-powered acid spray. I snatched you from DuPogue's arms—you could not have been senseless for more than a minute. I tried to kill him then, but those demons of his pushed in between, and I was glad to bear you away on my shoulder to the ship, thankful that you had not been touched by the blight. It was a miracle that you didn't fall.

You had dodged the blow, a little, and did not receive a force full enough to smash your skull. You lay in delirium for two days, and babbled the sorrow in your heart —that we were destroying our only chance of living when we destroyed the blight.

That is why we let you think that you were sealed to the same fate. That is why Caris Bridge seemed so helpless before that first spy with the blight-thrower—she was trying to keep you from braving him. That is why I threw myself forward to take the blond woman's attack instead of you. That is why you, having won, will live for many years to glory in the winning.

Work hard, my dear friend, and enjoy this life that is left to you. Marry, perhaps, that splendid young woman, Caris Bridge. And think sometimes of us who loved you—Newton, Darwin, Edison, Marie Curie, and even of

your affectionate
Louis Pasteur.

Norfleet finished the letter, and stood silent, feeling very light and vague in that downward-floating cabin. Marie Curie evidently knew what Pasteur had written to him. She moved at his side, and he felt the gentle touch of her hand upon his bowed head.

"God bless you," she said, so softly that he could hardly hear the words. "And a long, happy life to you."

But he was trying to decide whether to be sorrowful or glad. Resigned days ago to a disembodied death, he had come even to look forward to it. If his body evaporated here, there must be some existence elsewhere, and he would find there the comrades gone before him, perhaps even more understandable and companionable.

"It was a kind deception, Madame," he said, still gazing at the letter. "Kind and wise, for it made me think clearer and work harder. Yet I have a sense of being rejected and found unworthy. Death, to these others, was like a climax to great work completed."

"Perhaps your work is yet to do," she offered, in the same soft voice more to be felt than heard. "Perhaps it will take many years, and will be finished only when you are of ripest age, ready to lay down the burden of life. Perhaps that labor, and the fame that attends it, will surpass us all."

Once more a pressure, light as a leaf blown against his brow. A touch of her fingertip? A kiss? He looked up.

MARIE CURIE was gone, even with her last word. Norfleet was left alone with the burden of victory. It oppressed him like a weight, and he felt tears rising to his eyes, the first tears he had known since childhood.

Alone—or was he? Perhaps it was the close narrowness of that downward-parachuting chamber, perhaps his overwrought imagination, but he felt presences around and behind him. The fancy was born that, should he turn, they would be all there, and he forebore to turn lest the fancy depart. Only he let his mind's eye see them—patriarchal Darwin, hand in beard; small, vital Pasteur, with a jest on his lips; Edison, his fellow American, tugging his bushy brow over some mechanical problem; Isaac Newton, the good knight of wisdom; and Marie Curie, lovely and saintly, who had departed in the midst of the comfort she brought him.

"They will never leave me," he said to himself. "Never. I'll always have the thought and sense of them here at my shoulder helping and sympathizing with me, down to my last instant of life."

He took a step forward to the television apparatus. It was still in order. It showed him that the ground was approaching, a prairie with brown earth and green grass and, toward the horizon, a clotted blackness that must be the hole from which the blight had been torn.

It could be only a deep abyss now, horrible to look upon; but time and the washing and blowing down of soil would make its slopes gentle, its bottom shallow. It would fill with greenness and life, become a dimple instead of a scar. People could venture to the edge, perhaps descend into it. For ages it would commemorate the danger that had threatened, and had been turned aside. And finally, it would be

level and smooth, not to be distinguished from any other place.

He turned dials and let his vision wander elsewhere. Up in the sky swam a red ball, darker than the sun and smaller—a new satellite of Earth, too far out to infect her, embodying within itself all the sore infection. Too, it was the dwelling-place, if he still lived, of Spencer DuPogue.

It was not impossible that DuPogue had survived that ripping away of the chosen domain he had tried, and failed, to extend all over the world. It was not impossible that he could continue to live there. The chemical activities of the blight were considerable, they might exude a breathable atmosphere, though the detached lump would not have gravity enough to hold it. Food DuPogue could make for himself. And so he might exist, for a long lifetime and more, until the blight, turned cannibal, had devoured itself to nothing. His future need never concern the planet from which he had been hurled.

Norfleet considered the things yet to be done—reports for the Board of Science, conferences with government heads, a new job to be hunted up for his support. He might write a book, though he doubted if he would publish it. Finally, there was Caris.

She would be waiting at Fort Riley, sick with suspense. He would go there as soon as he could manage. They had time, now, to talk about themselves and what they might mean to each other.

The floor of the cabin settled gently down upon solid ground and Oliver Norfleet sighed deeply and tiredly.

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IN THE NEXT ISSUE

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THE BRIDGE TO EARTH

A Complete Long Book-Length
Scientifiction Novel of Men
Who Vanish

By ROBERT MOORE WILLIAMS

•

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The Metal Man Was on Trial for His Life—But the State Claimed He Didn't Have One!

A policeman fired at the Tri-octopus, but the shot had no effect

ROBOT A-1

By OSCAR J. FRIEND

Author of "Of Jovian Build," etc.

THE judge's gavel thumped three times in the ghastly quiet. The voice of the court clerk rang out nervously.

"Oyez! Oyez! Oyez! The case of the Commonwealth against the Forsythe Mechanical Man is now opening by order of Judge McElvery. Are the attorneys for plaintiff and defendant ready to proceed?"

Three grave-faced men stood up at the counsel table for the State.

"We are ready, Your Honor," said the spokesman.

Thump went the judge's gavel, and all eyes in the crowded courtroom turned toward the defendant's table. Nothing was there save a queer-looking contrivance. It was, as compared to the color and form and curves of a human being, a crude caricature of a man.

Some seven feet tall, made of a glistening white metal and with a pair of jewel-like compound eyes of special optical glass, with two hinged arms and two sturdy legs, with a row of buttons up and down its cylindrical body front in lieu of shirt or vest buttons, as rigid and lifeless as a column of stone, stood the incredible invention known as the Forsythe Mechanical Man, or Robot A-1.

The whole procedure smacked of the

pompous legal trials of the middle ages when inanimate things or unreasoning lower animals were seriously tried by due process of law for their so-called crimes and sins. Was this a court trial in the days when frogs in the town were ordered not to croak so loudly, when rats were tried for eating grain, when swine were tried for killing a person? Not at all! This was a sober and serious trial in the Criminal Courts Building of New York City in the year 1940, A.D.!

"Well," said the judge testily. "Is the counsel for the defense invisible or not prepared?"

There was at last a response to this acid inquiry. The many-faceted eyes of the robot lit up with a dull gleam as though they were twinkling. Then a hollow but perfectly articulate voice spoke from the amplifying cone just behind the metal lips.

"If it please the Court," came the words, "I will conduct my own defense."

A woman shrieked as she saw that nobody was at hand to operate the robot. Another fainted. And the judge rapped again for order.

"This is highly irregular, Your Honor," cried one of the three lawyers for the State. "I move that the Court appoint—"

"It is part of the legal code of this country and this state," interrupted the perfect voice of the robot, "for an accused person to conduct his own defense without having been admitted to the bar, if such is his or her desire. It is my desire."

"Proceed with the case," ruled the judge.

Without any noise save the slight whirring of his gyroscopic motor which functioned for Robot A-1 like the cerebellum and the canals in the ears for human beings, the mechanical man moved his rubberoid-covered metal feet and walked over to the judge's bench.

"I ask only permission to conduct my defense in my own way, Your Honor. First, may I hear read the charge on which I am being tried, for purposes of the record?"

The judge ordered the charge read. The clerk obliged in his nervous voice.

"The State versus the Forsythe Mechanical Man, hereinafter called Robot A-One, indicted June twenty-first for the manufacture of deadly machine known as the Tri-octopus, a seven-foot tall mechanically motivated machine which stands on three multi-joined legs and has eight cabled arms, and which was used to kill seven persons on the lower subway level at Times Square before it was fortunately knocked off the platform in front of an express train and destroyed. How do you plead, guilty or not guilty?"

FOR a moment there was silence in the courtroom. Then:

"I plead guilty of making the Tri-octopus, and not guilty of operating it to take human life," answered the voice of the robot.

"Where are your witnesses?" demanded the Court.

"I will use the witnesses for the prosecution, Your Honor."

"Gentlemen of the prosecution, proceed with your case," ordered the judge.

"Call the first witness," said the senior lawyer to the clerk.

"Robot A-One!" called out the clerk, reading from a list in his hand.

The mechanical man stiffly turned his head toward the table for the prosecution and then actually made a convulsive movement which could have been interpreted as a shrug. He walked firmly to the witness chair, a marvel of smoothly coordinating parts, and held up his right hand with its blunt but powerful looking rubberoid - coated fingers.

"Swear me," he said to the dumbfounded clerk.

"I object!" cried one of the lawyers. "You can't administer an oath to a mechanical gadget! I don't care how human it acts."

Robot A-1 turned to face the speaker.

"Mr. Martin is your name, I think. You are refuting your own carefully compiled argument by such a statement, sir. In trying me for this crime you must recognize me as an entity. I advise you to withdraw your objection without waiting for the Court to overrule it."

Mr. Martin withdrew his objection and sat down in discomfiture. The oath was administered, and Robot A-1 seated himself carefully in the witness chair and faced the Courtroom.

A correspondent for a Washington, D. C., newspaper turned in amazement to his companion.

"What the devil goes on here?" he demanded. "Am I crazy, or is it this Court?"

"Sh-h-h!" warned his companion. "You came here to write up the Tri-octopus murders, didn't you? Well, be quiet and listen. This is just as strange to us as it is to you."

"Do you mean to tell me that that thing is alive?" exclaimed the Washington man incredulously. "And that it's on trial for its life for making another machine which committed murder?"

"I don't mean to tell you a blessed thing," said the New York man firmly. "You just listen and draw your own conclusions."

Mr. Martin had recovered his aplomb, and he advanced to ask questions of the bizarre witness.

"You are a product of David Forsythe, finished by Dr. Forsythe some time in Nineteen-thirty-nine?" he asked.

"I am," replied the witness, his faceted eyes glowing strongly as an inner tube was agitated and then faded almost blank. "I am also aware that a being accused of a crime cannot be made to testify against himself. However, I waive that right."

"You—you claim to be the only independently motivated robot ever created? In brief, you claim to be a thinking entity?"

"I am a thinking entity," answered Robot A-1 clearly.

"And your owner permits you to roam around free to do as you please?"

"I have no owner. True, I have super-mental powers, but I am a free citizen of these United States of America. You have there in your pile of evidence my papers of freedom. They were given me by Dr. Forsythe, in November of last year, and give the registration of my history, my name as Robot A-One, and the Social Security number that Dr. Forsythe had the goodness to procure for me before we parted."

"Before you parted? Then you are no longer associated with Dr. Forsythe?"

"I am not. I purchased my freedom from him. I approached Dr. Forsythe with a proposition shortly after he created me when it became apparent that I had the power of conscious and abstract thought. Finding Dr. Forsythe despondent over his failure to power and control another invention of his, the Tri-octopus, I offered to construct the series of controls and the radio set that would activate the machine by remote control in exchange for my freedom. Dr. Forsythe agreed. I fulfilled my agreement, and Forsythe made good his end of the bargain."

"YOU claim, then, to have been a free moral agent since November, Nineteen-thirty-nine?"

"I do."

"That will do for the present," said the attorney for the State. "Call the next witness."

Lamkin, the Washington reporter, twisted in his seat.

"This is incredible," he muttered. "I've got to have a drink."

But the clerk called the next witness, and Lamkin forgot to leave the room. Robert Chaldow, a thin-nosed man with the hands of a skilled mechanic, took the stand, looked nervously at Robot A-1, and gave his testimony in a jerky, high voice.

He, it seemed, was an excellent mechanic. He had done all kinds of work at various times for Dr. David Forsythe in the past ten years. Yes, he was acquainted with the mechanical man known as Robot A-1, having first met him in the Forsythe laboratory early the preceding year. As a skilled workman, Chaldow had manufactured and installed the cables and drums and gears that Robot A-1 designed in a freakish looking contraption that eventually became the seven-foot Tri-octopus.

The State's attorneys rested, and Robot A-1 took the witness.

"Do not be alarmed, Mr. Chaldow,"

his queerly penetrative voice said soothingly. "I have no intention of harming you, nor of confusing you in your testimony. I only want to help you make certain things clearer. Being a mechanical expert, you have been called in numerous times by Dr. Forsythe to do special jobs in the past decade, have you not? You even did some of the work on my body, as I recall, did you not?"

The mechanic shivered as though he were having a chill.

"Y-yes," he admitted, his teeth all but chattering. "But how could you have known that? Dr. Forsythe hadn't even installed your radio units then."

"I know a great many things," said Robot A-1, and Lamkin could have sworn he heard a sob in that mechanically perfect voice. "There was a young scientist working with Dr. Forsythe a couple of years ago by the name of Professor John Maynard. Did you know him, Mr. Chaldow?"

"Y-yes, sir," admitted the witness.

"What ever became of Professor Maynard, Mr. Chaldow?"

"I—I don't know. Dr. Forsythe told me he had gone to the Orient on some special job."

"That was recently, Mr. Chaldow?"

"The spring of 'Thirty-nine."

"I see. And when did you last see Dr. Forsythe?"

"The day you and he put the micro-dynamic-control set in the Tri-octopus. As soon as it was seen that my work was satisfactory, Dr. Forsythe paid me off. I've never seen him since. He just disappeared. The police claim his laboratory had been deserted for weeks when they broke in—"

"I object!" cried out the speaker for the trio of State attorneys. "The hearsay gossip of the witness has no bearing on the question."

"I agree to that," said Robot A-1 before the judge could rule on the matter. "Witness dismissed."

The next witness was a woman with a pugnacious jaw, a hard and jaundiced eye. Miss Marie Lemar had been present in the subway warren at Times Square on the third day of June and had witnessed the actions of the Tri-octopus.

It had been standing innocuously in a corner tied up in brown paper on the upper level. Suddenly the tentacles had stirred and writhed, breaking aside the brown paper, weaving like a willow tree in a gale.

Then the powerful three legs with their flat-iron appendages for feet had sprung into activity. The machine had rumbled down the steps like a toddling toy toward the lower level. As people screamed and sought to get out of the way of the animated monster, it began encircling them with its tentacles and choking them to death.

One man's head had been squeezed completely off. From the interior of the metal machine came a soft purring noise, like the hum of a well running motor. Occasionally, however, this was interrupted by sharp pops and cracklings, like static on a radio.

SUBWAY guards rushed up, and one of them died horribly for his bravery. A policeman going off duty was there and he drew and fired his gun at the thing until his hammer clicked on an empty shell, and it had no more effect than if he had popped a toy pistol. And just as the Tri-octopus was reaching for Miss Marie Lemar, the solid concrete and steel areaway trembled under the rapid charge of none other than Robot A-1.

With one hand the robot pressed a button or two on his own studded front; with the other he grasped one of the terrible tentacles near its base. To Miss Lemar it seemed that the two things were talking to each other in some sort of electrical language. She didn't have time to think Robot A-1 was queer, because he looked so much more human than the other thing.

And then the Tri-octopus almost snarled as its machinery and motors whirred into higher speed. It tried to jerk away from Robot A-1. And Robot A-1 did an amazing thing. He tore the tentacle free from the monster. In its recoil the Tri-octopus staggered back and toppled off the platform onto the express track of the downtown train just as a string of cars came into the station. That was the end of the first Tri-octopus.

Court attendants brought in fragments of whiplike tentacles, a metal shell, one flatiron foot—and Miss Lemar identified them as particles of the seven-foot monstrosity that had slain several people in the subway.

From this the State's attorney attempted to build up their case against Robot A-1. According to their theory, Robot A-1 had, like the classical monster of Frankenstein, turned upon his creator and destroyed him. Then he had proceeded with his experiments with remote control of the Tri-octopus, and the latter had got out of control that June day in the subway and had murdered a number of people, including a policeman and a friend of a friend of the police commissioner. Therefore, Robot A-1 should be condemned to death for the manslaughter of these innocent men and for the undoubted murder of Dr. David Forsythe, although there was no corpse to prove the crime.

The Washington reporter couldn't stand it any longer. He got up and moved down to the railing near Robot A-1. He stood there fascinated until a uniformed attendant came and led him away.

Robot A-1 was not pleading a case for himself. But he was explaining what he had been doing in the subway station at Times Square the day of the terror.

"To be only a cold metal robot in the midst of warm human life is a terrible thing," he said in his mechanically perfect voice. "Especially when one has all the impulses of mankind. The Times Square subway station is one of the most crowded places in New York, day or night. Remember that a robot never tires, does not need sleep, does not need to waste time in resting or eating. Thus when I was not reading in the public library, I spent all my spare time in the subway wistfully watching the human beings who scurried about me.

"After Dr. Forsythe disappeared with his Tri-octopus I found myself very lonely. I was not happy with my newly won freedom. I attracted attention wherever I went, people regarded me as a freak. There is a great deal more to my story, but you find it incredulous enough as it is, and I will not add further strain on your mind. But you must believe me when I tell you that Dr. David Forsythe is a madman who is determined to control the world. His conquest will begin with the release of giant war-machines all over the earth. If anybody in the world should know this to be true that person—or robot—is I.

"FORSYTHE disappeared purposely. He knew where to find me. He knew I would be in the subway at Times Square at that hour. By remote control he deliberately staged his display of the Tri-octopus in order to test its powers, and to have it destroy me. I tried to stop the actions of the Tri-octopus I had helped create —as this witness, Miss Lemar, has testified. But Dr. Forsythe had amplified the control I designed for him, and I was unable to command the machine. Fortunately, it was destroyed. But Dr. Forsythe has the plans and he will duplicate the Tri-octopus—perhaps a thousand times, if he isn't found and stopped.

"Do what you will to me. I deserve my fate for abusing my talent for his vile ends, for letting him fool me with his story of an Utopian world with mechanical Tri-octopi to do the work for men. Why should I have believed him after what he had done to me? But I wanted my freedom. And history teaches us that mankind has gone to great extremes for freedom. . . ."

There was more, but Lamkin didn't hear it. He was led back to his seat by the court attendant, and he sat down beside his New York friend like a man in a daze.

"Robbins!" he whispered, when the other shook him to bring him out of it. "Robbins! It's uncanny—unbelievable! I tell you that—that thing has a personality. I felt it. I stood close to it for a few moments, and I felt it beating out at me like a tangible force. I've gone mad, I'm firmly convinced. Let's beat it out of here and get a drink."

Court was adjourned for noon recess in the middle of Robot A-1's speech, and Robbins went with the other reporter willingly.

That Court was never reconvened. Later, the two reporters secured the few available facts from the two sergeants in whose custody Robot A-1 had awaited the outcome of his bizarre trial. At the first alarm, Robot A-1 had prevailed on his two guards—whom he could have killed with little effort—to go with him to the laboratory of Dr. David Forsythe. There, they had stood in dumb wonder while the mechanical man gathered up some queer apparatus and then hastened with them to Times Square.

In the meantime, the two reporters, going to this throbbing heart of Manhattan so the Washington man could view the spot at which the first catastrophe had happened, were among the few eye-witnesses to the fantastic sequel to the whole amazing thing.

They had just come up out of the subway at the kiosk in front of the Paramount building when they heard a woman scream. Then they became conscious of the powerful drumming roar as of a monster air squadron flying over New York. Robbins caught Lamkin's arm and pointed.

"My God, Lamkin!" he cried in a voice grotesquely thin in his excitement. "Look!"

Lamkin stared.

Out of the canyon that was Seventh Avenue, towering several hundred feet in the air, waddling along like a golden, metallic three-legged duck, making the streets tremble for a hundred yards at each Cyclopean step, came a new Herculean Tri-octopus. Even as Lamkin stared in unbelieving horror, he heard the awful wave of sound—the cries and shrieks of the maimed and dying in the wake of the terrible thing which had marched across the Hudson River from the marshes of New Jersey, devastating Jersey City and Manhattan as it came.

THE sight of the eight cabled tentacles writhing and flexing like the locks of a metal Medusa, attacking buildings and people with their two-pronged points, simply stunned the newspaper men. Crowning the top of the thing was a spherical dome from which two intense beams of light flared downward like malevolent eye stares.

As the paralyzed crowds watched, the huge machine rocked into Times Square, narrowly missing the Times Building and taking a hunk out of the shoulder of the Paramount Building as it passed—like a boy taking a swift dig at a piece of cake as he walked by the table. One tentacle reached down and coiled around a luckless bus, snatching it up into the air and spilling passengers out as that same mischievous boy would have shaken animal crackers out of a box.

Another tentacle gathered up a handful of the frantic crowd and dashed them to the ground in disdain. And in its wake was a cloud of dust from its passage. Panic gripped the crowds. Traffic jammed in Times Square.

Then, just as the two reporters were on the verge of diving like prairie dogs back into the hole that was the subway entrance, when the crushing of thousands was inevitable, a taxicab careened madly into Broadway from a side street, and the silvery figure of Robot A-1 stepped out and raised a long black tube which he pointed upward at the terrible monstrosity.

A pale green ray blossomed from the end of the tube, struck the huge belly of the giant Tri-octopus, and then ran in spreading lines all over the great destroyer in lambent green flames like the running flames of a gasoline fire. In the space of several seconds the entire structure was a glowing figure of green fire—all but the huge flat-iron feet which must have weighed five tons each. The queer ray ate upward.

The huge machine shuddered to a halt with one foot lifted in the air almost directly above the silvery figure of Robot A-1. It acted as though trying to obey an order to retrace its steps and flee. The terrible drumming roar of heavy motors grew louder, more strained — and then, suddenly, the whole thing seemed to explode silently. It simply disintegrated into tons of glittering green dust, an almost impalpable powder that blew for miles across land and sea in spite of the fact that most of it fell in Times Square.

The uplifted five-ton foot, sheered off as if by magic by the queer green ray,

dropped squarely on the valiant figure of Robot A-1, narrowly missing the two policemen in the taxicab.

When the two reporters reached the spot they found Robot A-1 queerly vindicated in what he had claimed at the court that very forenoon.

There was an elevator shaft in the five-ton foot and section of severed leg. The lift had descended just before the leg dropped off, and the body of Dr. David Forsythe was found imprisoned in it. He had been trying to effect his escape from the control chamber of the huge machine when the green ray overtook his colossal Tri-octopus.

ROBOT A-1 was thoroughly flattened and destroyed. When a caterpillar crane was fetched and the five-ton foot lifted from his metal body, he was nothing but a tangled and crushed debris of wires and wheels and tubes.

"But, damn it!" said Lamkin in awed exasperation. "I can't write up such a yarn, and neither can you. Whoever heard of such a thing as a living and thinking robot?"

"Nobody," agreed Robbins, poking reverently at the head of Robot A-1 which had somehow missed the five-ton blow.

The top of the circular head came free, and the two men found themselves staring at a broken container of some colorless serum with hundreds of tiny filaments running from it down through the neck. But the queerest, most revolting thing of it all was the mashed remnants of a human brain that had been housed in the container.

"Great God!" shuddered Lamkin. "Wh— what does it mean?"

Pale to the lips, Robbins slowly answered:

"It means that Professor John Maynard will never come back from that special trip to the Orient."

"I still don't believe it," murmured Lamkin, his eyes sick with horror.

"Whether you do or not, better not write it," said Robbins.

And neither of them ever did.

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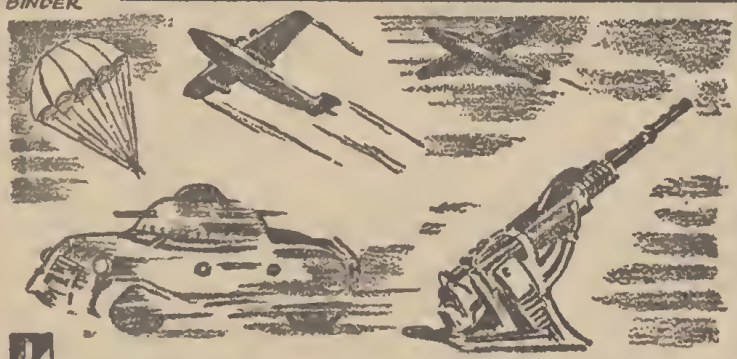
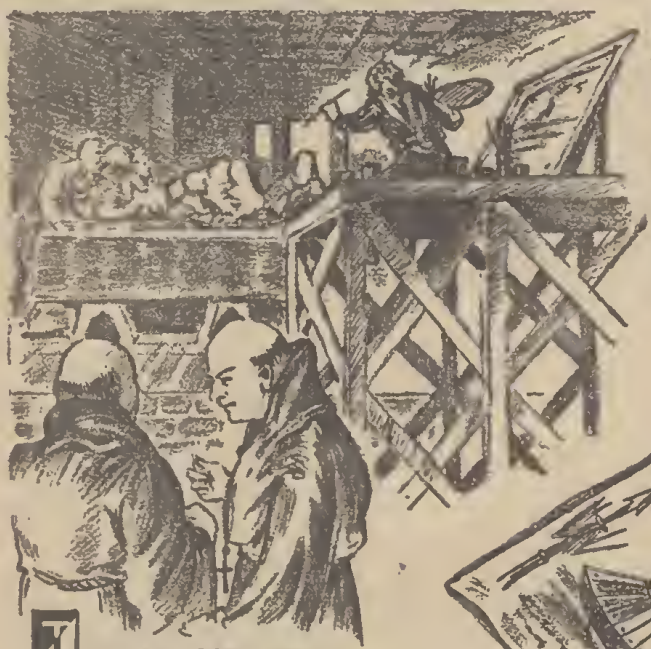
THE LIFE STORY OF LEONARDO DA VINCI THE UNIVERSAL GENIUS!

BY JACK BINDER



LEONARDO DA VINCI
BORN, 1452
DIED, 1519

LEONARDO DA VINCI WAS BORN AN ARTIST AND DIED A SCIENTIST! IF THE ART OF PRINTING HAD BEEN AS WIDESPREAD IN HIS DAY AS NOW, HIS FAMOUS *NOTES* WOULD HAVE PRECIPITATED THE AGE OF SCIENCE FOUR HUNDRED YEARS SOONER. HIS POWERFUL INTELLECT ANTICIPATED HUNDREDS OF MECHANICAL INVENTIONS, INCLUDING THE MACHINE-GUN, ARMORED CAR, LIFE-PRESERVER, WHEELBARROW, SUBMARINE, PARACHUTE AND AIRPLANE!



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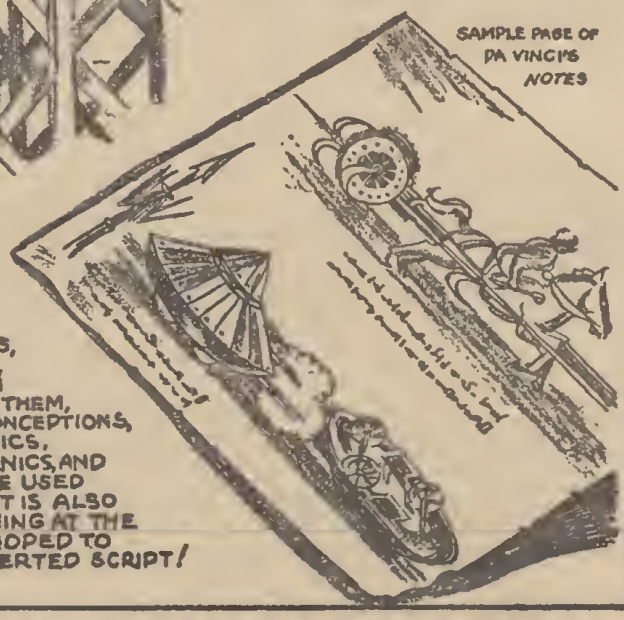

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Next Issue: THE LIFE STORY OF ALFRED

BERNARD NOBEL, Creator of Dynamite

THE WORLD

By EDWIN K. SLOAT

A scientifiction favorite of the past nominated for revival by STARTLING STORIES

•

THE room was vast and cavernous. Occasional electric lights gleaming here and there in it fought off the encroaching darkness, magnifying its gloomy corners and the shadows among the cobwebbed wooden girders of the roof.

In the dim light there appeared in vague relief a titanic, metal monster sprawling all along one side of the room. Uprearing its disordered, ungainly shape halfway up the wall, its twisted, tortured masses of tubing, wires and coils suggested, somehow, the vitals of a mechanical giant.

A maze of dials, switches, and gauges revealed the switchboard control of the monster, and near it stood a long, low table covered with green billiard cloth

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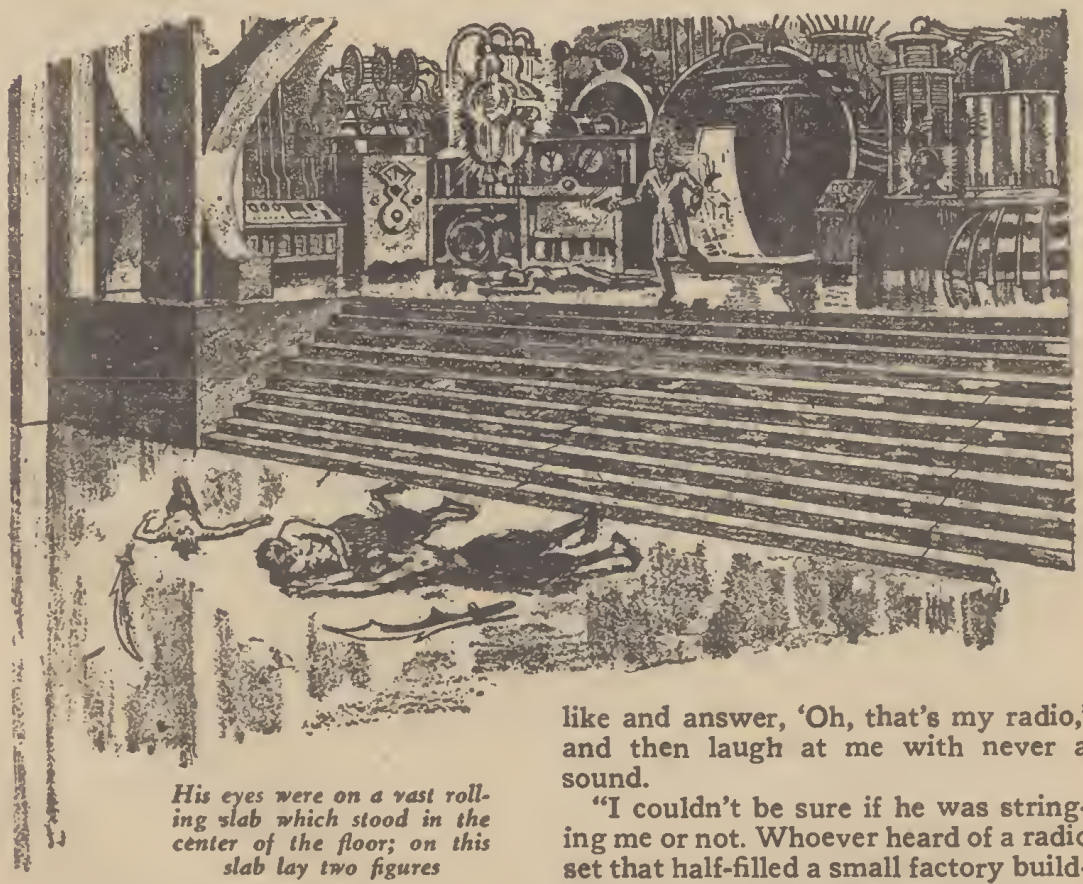
Science Unlocks the Gateway to an

and lighted by a single electric light bulb suspended above it. Seven men were seated there, all staring at a square of paper beneath the light. On the paper-square was a mound of ashes such as might fall to the floor of a cremator when a corpse is consumed in it.

Seven pairs of eyes stared at those ashes with mingled awe, curiosity and loathing. The heavy human silence was disturbed only by the booming rumble of thunder in the rainswept night outside, and the rattle of rain on the roof overhead. One of the men coughed as the acid-laden air bit his throat. He turned toward the open window nearby, for a breath of fresh, damp air.

There was an eighth man present, a lanky, powerful individual whose clothes seemed too small and tight for him, and who stood at the head of the table. He seemed uneasy and afraid. His glance darted from one face to another, then unwillingly strayed to the mound of ashes. He said:

"I don't know whether Steinhilde was crazy or not. I didn't know him very well—no one around here did—but I suppose I knew him better than the rest. That was because I dropped in pretty often and kidded him about all this machinery. Asked him what he was up to, anyway. He never talked very much, but sometimes he would shift those big shoulders of his slow-



His eyes were on a vast rolling slab which stood in the center of the floor; on this slab lay two figures

like and answer, 'Oh, that's my radio,' and then laugh at me with never a sound.

"I couldn't be sure if he was stringing me or not. Whoever heard of a radio set that half-filled a small factory building and had tubes as big as boiling vats and as many gears and wheels as a threshing machine? I figured this must be a laboratory of some kind. I even got the idea he might be making artificial diamonds. I kept pestering him about it, scoffing at the idea that this

could possibly be a radio.

" 'If you don't think that's what it is, just listen,' he said, and turned to the switchboard.

"In a few seconds there was a roaring, humming sound up there among the machinery, which ended when WJZ broke through with a roar of music. I nearly fell off my chair. There was no static, or interference, it was that perfect. Steinhilde watched me out of the corner of his eye and laughed without any sound.

" 'Oh, she'll do, all right,' he said, patting the dial. 'She's the best entertainer we have, Josef and I.'

"AFTER that I came back often—got so I'd hang around every night after work to hear bands and orchestras that seemed to be right here in the room with us, and singers that might have been perched up there in the machinery somewhere. The applause at the end of the numbers was like the roar of the sea, and the announcer had a voice like a giant.

"Sometimes Steinhilde operated the machine, and sometimes his assistant, Josef, a little, dried-up old fellow who hardly ever talked and then only in broken English between puffs on his big black pipe. But they never offered to let me operate the thing.

"Then one day both of them were all excited about something, and didn't pay any attention to me. Steinhilde smoked cigarettes one after another, and Josef tramped about the room here like a caged animal with his kindly face set and his pipe, cold and empty, clenched between his teeth. Two or three days afterward Josef wasn't here. I found Steinhilde with his eyes glowing like coals sitting here at this table when I came in.

"Where is Josef?" I asked, more to make talk than anything else.

" 'Oh, he's away on a journey,' he answered. 'He says he'll be back soon. I'm sorry, but I can have no music for you tonight, I'm too busy. Next time.'

"I don't know what made me feel uneasy, but I tell you I was glad to get out of the building. The whole thing began to look funny to me; so funny, in fact, that I didn't come back till tonight. I wouldn't have come then, but Steinhilde called me on the phone all excited and fairly begged me to. Finally, I decided to come.

"Steinhilde met me at the door and brought me to the light beside the table here. He scared me bad—not his face, although that was grim enough, but what he wore about his waist. He had buckled a belt with a holster on each side, and in each holster was a revolver. Thrust through the front was a long, shiny knife, and from the right side hung three things that looked like old fashioned potato mashers. If he noticed me staring at them, he didn't pay any attention, but only said:

" 'White, you are the only man I know well enough to trust just now. You are about to witness something that no one else except myself has ever looked upon. I'm going to step into that big ball there and disappear. Do not be alarmed. I'll come back. I just want you to see that nothing is tampered with while I'm gone.' "

White paused in his narration. The others at the table turned to stare at the ball White indicated. It was a huge, metal globe with a mass of wires curling up and away from it like hairs from a human head. The interior, seen through a square opening large enough to admit an upright man, proved to be a perfectly spherical room. The outside of the ball was only a crust of metal and was lined with white, finely laminated substance like platinum. Beside the square opening was a switchboard with a labeled universal switch in the center and a host of dials and knob controls.

"I WAS pretty scared and didn't say a word," White continued. "The lightning and thunder outside didn't help any either. Without another word Steinhilde stepped into the ball, reached out to the switchboard and twisted a knob. Great tubes back up there in the machinery lighted up with a red glow that flickered on the walls like the light of a burning building shining through the windows. While I stared at him Steinhilde disappeared. He went, just kind of like a match flame before a puff of air. I just went on staring at the empty space. Pretty soon ashes began to float down

through the air out of nowhere to settle on the floor of the ball."

White paused, mopped his face desperately and stared about the ring of faces like a hunted animal, fearing to detect there disbelief. There was none. Presently one of the men glanced up.

"What did you do then?" he asked.

White gulped, then went eagerly on.

"I—I didn't know what to do! Did you ever see a man cremated like that before your very eyes? I've seen plenty of tough sights, I've lived rough, I've stood up in the ring to some good ones, and I've been in mob fights where men's heads were busted like eggs. Once I saw a man knifed to death in a speakeasy, but I never saw anything like this before.

"I was about scared to death! Here I was alone in the building. Maybe the police, you fellows, would think I did it. At first I pretty near ran away. Then I got hold of myself and sat down to think. I decided I'd better call the cops, and that's what I did!"

Only the sound of the raindrops rattling on the roof above followed. The coroner turned to the police sergeant and conversed with him in a low whisper, then turned to a detective.

"What do you think about it, Smith?"

"Plain case of suicide," declared the detective. "The old boy was nuts over this radio stuff and cremated himself. Probably bumped off his assistant, Josef, the same way. This Steinhilde ought to have worked for an undertaker."

"Those are my views, too," agreed the coroner. "There is nothing more we can do. However, one of the men had better watch the place tonight," he added with a meaning nod at White who was slumped down in his chair. "And before we leave, we might as well shut off the power and save somebody some money."

He arose, went to the switchboard and pulled the universal switch. Immediately the hum of the concealed, powerful motors ceased. The others arose, buttoned their coats about them and left the room, leaving behind the detective who had been assigned to watch the building. He drew a chair up before the door, sat down and leaned back. The tragic mound of ashes had been taken by the coroner.

White sat dejectedly in his chair. He had not been accused of the death of Steinhilde, nor arrested. Yet he was aware that he was under suspicion; he realized that the detective had not been assigned to watch the building, but to watch him. He mentally reviewed the details again.

IT was not more than twenty minutes ago that Steinhilde had stood here before him talking. And now he was dead, and White was under suspicion for killing him. As he tried to analyze his feelings further, White found that he was vaguely uneasy from some cause apart from that suspicion. He felt that he had left undone something he should have done, or had done something he shouldn't have done.

He sprang to his feet and paced restlessly up and down the room, pausing finally before the battered desk at which he had often seen Steinhilde working. It was cluttered with papers covered with algebraic figures and copies of several scientific magazines. At the back of the desk against the wall was a collection of scientific volumes. White glanced at them carelessly and was about to turn away when he noticed a small, thin, red book wedged in between two thick tomes bearing German titles. He drew it out, and turned its pages idly, stared suddenly at the reading matter in amazement, then hurried back to the light. The detective kept his eyes on him but made no move. White opened the volume and began to read feverishly.

"June 16—We have proved that the transmission of matter by the electronic disturbance set up by atomic disintegration is entirely feasible. Josef is so delighted he can scarcely talk. Our efforts of more than a decade are about to be rewarded. Weather conditions were ideal today, although I believe they will have no effect on the phenomenon, so we set up our miniature electronic sets in either end of the building shortly after midnight and by smashing the atom of hydrogen succeeded in transmitting a pint of water from one to the other. The water disappeared from the sending set and

came out of the receiving set as steam. Success is close."

White skipped several pages devoted to code and mathematical formulas before he came to another entry. He grinned sheepishly as he read it.

"JOSEF is still chuckling about my simple plan of installing an ordinary radio receiving set with the speaker concealed up in the machinery of the atom disintegrator, and passing off the whole machine as a monstrous radio set. White obviously believes that is what we have, and so does our landlady. Well, brighter minds than theirs have been fooled by simpler devices.

"July 2—We have now finished our first big electronic set with its tremendous power hook-up. It stands fifteen feet high and is both a transmitter and a receiver. There is a peculiar circumstance connected with it. As soon as we put it into operation as a receiver mysterious sounds began to emanate from it. Josef was fascinated. He listened to it all morning, and copied down a number of what he thinks are messages. He believes he is on the trail of something big, but I think he is merely listening to some sort of static. It seems to buzz out the letters 'A A A O U K, A A A O U K,' over and over. If the sounds come from some station, the letter combination must be its call letter. Josef points out that static doesn't usually repeat itself in that fashion. He may be right.

"July 3—Josef has a friend in Washington who is a code expert. Josef is going to send him the messages he has copied and see what luck he has with them. If they are of human origin and mean anything, he can decipher them."

"August 1—Real success this time! We transmitted a brick from one little electron set to the other and it came out flawless. Tried a kitten next. It walked out of the receiving set in a dazed sort of way. Josef was so enthusiastic he sent the little animal through the process again. It seemed none the worse for the experience. The transmission was instantaneous. Even the slightest nerve impulse in motion at the time is transmitted with the matter.

"We also hooked the little set with the big one and found both reception and sending of the big set perfect. It was an easy matter to perfect it after we solved the mystery of the laminated inner surface.

"What a war weapon we have discovered! Our imaginations are staggered by its stupendous possibilities. An army appears within the enemy's gates, transmitted there instantaneously thousands of miles across oceans, mountains, deserts and cities as fast as armed men can march in and out of the sending and receiving sets. All existing methods of transportation, except for pleasure, pass into history with the primitive ox cart, scow and pack animals. Distance vanishes. Hongkong, London, San Francisco, Buenos Aires, Honolulu, Capetown and Sydney will be but an instant, the fractional part of a second, away from each other.

"August 15—Josef received his messages back from Washington with an alphabet key. His friend, the code expert, says they were the hardest proposition he has ever tackled. Only through the merest chance, the fundamental fact that all human understanding is based on a few universal traits, did he stumble onto their solution, then had to call on a linguist for ideas about translating them into English. Even so, only a part could be made out. One message may furnish a clue to the identity of the station, although nothing in the European press dispatches indicates that the Polish armies are in the field at this time. Here is the message:

The Pole Army is hard pressed near big pass. Warning of a possible water shortage is given by Diamoude.

"I CAN make nothing of it.

"Josef has an idea that may bear fruit. He is going to write the English translations for the messages, if he can establish communication with this A A A O U K, and will send first the original message, and then the translation, which will give the senders at that place a basis for communication with us if they can understand the idea. I hope this entire affair will not prove to be a hoax.

"August 16—After twelve hours of unremitting effort during which Josef

sat in front of our electronic set using it in the sending phase and working with a loud, improvised buzzer, he finally got in touch with this mysterious station tonight. We were swamped with messages in code at first, then a babel of voices and strange words poured out of our set in a torrent of sound. Josef finally broke through with the buzzer and started sending his prepared messages of the originals and the translations. When he ended, absolute silence followed. We are now waiting.

"August 17—Our discovery! It is unbelievable! I shall not write down the identity of the place A A A O U K here, lest this little volume fall into strange hands and I be suspected of insanity—more so than I already am, I mean. When I have enough proof I shall set it all down in these pages and then announce it all to the world. But until then the secret of our great find must not go beyond Josef and myself. However, I will say that communication between us and A A A O U K has been established on the basis of the English translation Josef sent them. I am fascinated. I cannot work further just now on the big electronic set we are planning to send to Washington."

No additional entry had been made in the book for nearly two weeks, apparently, for the next page was dated Septemper 1 and bore the following notation:

"Josef is determined to go to A A A O U K. Their device for transmitting is obviously the same as ours, although I don't keep it synchronized with them for that—only enough to carry on communication. They have an intelligence that is almost genius, for they have already learned to use English.

"However, we proved that we could transmit matter by sending them our kitten, and they, in turn, sent us a fish, a queer, flabby, gaseous specimen which nearly died before we discovered that it needed salt water instead of fresh water to live in. It is certain we could send a human being.

"They have promised us a most interesting visit, if we will go to see them. Somehow, I am filled with misgivings over the prospect, but Josef is wild to go. His nature is too generous and trustful to have any suspicions of individuals who possess such intellect and accomplishments. They have promised to keep him constantly in touch with me, and he, like an overgrown boy that he is, can see nothing but the holiday part of it. Everything might be all right, but I am afraid. I don't know why.

"September 3—Josef finally overcame my objections and went today. I believe he would have been sick if I had not given my permission. I turned the knob for him while he stood in the set smiling eagerly, all dressed up with his old, battered travelling bag in his hand. Against his will I made him take a revolver. He is such a trusting old soul I know he won't carry it after he arrives, but will leave it under his pillow, or on the dresser, or whatever kind of furniture they use at A A A O U K. I saw him standing there in the globe smiling. Then he was gone—vanishing like a shadow.

"GREAT was my relief when I talked with him for fifteen minutes after he arrived. Then he went out to see the city. He talked again when he came back. He is enjoying himself hugely. I could tell that from his voice and laughter. But nevertheless I wish he were back here with me. I can't shake off that presentiment of evil. Tomorrow I shall throw myself into the delayed construction of that big electronic set for Washington. Maybe that will relieve my feelings, and in addition will surprise Josef when he comes back. God grant that he may!

"September 10—I knew it! I knew it! Great Heavens, what can I do? Josef got word to me this morning in German, a language they don't understand, although they doubtless would master it in almost no time.

" 'For the love of God and humanity, *Kamerad,* don't let even one of these hellish creatures through our set!' he jerked out the words. 'They thirst, yearn, crave and demand that I send them through the set. They will do anything to get through. If one of them succeeds in getting through our set, he will do as much damage as ten thousand, and the ten thousand will

follow him—and ten hundred thousand more! After what I have seen here, it would be far better that both of us were dead and our set destroyed with its secret rather than have that happen. They may torture me into saying "yes," but don't listen, for I will mean "no." I am watching for my chance to get back to you, but they won't let me near the set now.'

"September 15—I killed their fish today. Dismembered it. Threw it into the sewer drain. I don't even trust a fish from A A A O U K . Josef says our kitten can jump ten or fifteen feet into the air when it is frightened, and is kept on display before the crowds in the public square. They are becoming more suspicious of Josef for not ordering me to let them through. I fear for him. Sending that kitten to them was bad luck—very bad—I know now.

"September 19—I can stand it no longer! For two days I have listened to Josef's cries and groans under torture before their electronic set. To my pleadings for them to stop they repeat that they will continue until he is dead, or until I let them come through from their seething, overcrowded world. Tonight at seven they start again—burning away his skin and flesh with white hot irons this time. I cannot let them go through with it!

"My worker, my friend! I shall rescue him, or die in the attempt. I have my revolvers, and several hand grenades saved from the war. My plans are carefully laid. When they have him before the set, I shall quickly tune in ours to synchronize exactly, and act. I shall step out of their way, before they know what is happening, and clear the room. Before they can recover themselves I shall be back here with Josef.

"I have worked out the plan thoroughly. I'll call White over to guard the building and machinery in case we might be delayed. I'll set the automatic timer so that our set changes from a sender to a receiver an instant after I am gone.

"It is a desperate mission, and I may never return from it. I should perhaps explain what A A A O U K is. I know positively now. But before I write it down here I want to—"

WHITE broke off his reading in abrupt horror. The current that operated the set had been cut off by the coroner when he pulled the universal switch before leaving the building! Steinhilde had no chance to escape back to the safety of the building. And after he, White, had promised to see that morning was touched or disturbed! He threw down the volume and cursed. Then he leaped to his feet.

There was still a chance. Steinhilde might even now be praying that the set would start functioning. White leaped for the switchboard and halted with his hand on the universal switch.

Suppose something strange, something fiendish, leaped out of the big ball? White shot a glance at the detective, now nodding in his chair, and crept toward him. From the armpit holster he gently removed the heavy automatic pistol, then leaped back to the switchboard and threw in the switch. The motors hummed to life, the big tubes glowed. White poised grimly before the narrow door of the big ball. There broke on his ears with a rush the sound of trampling, thudding feet, a blur of strange words and the screaming of a man. The voice was Steinhilde's. He was shouting it desperately.

"Ach, Gott! White, White, I see the set coming to life! Smash it! Smash it! They are starting through! *Gott im Himmel!* It is too late!"

The scream ended in a sob. White scarcely knew what he did. Vaguely he saw his hand flash to the knob he had seen Steinhilde turn, and he plunged feet first into the ball. There was a sensation of a violent upward surge as though he was carried by a powerful elevator, then he collided violently with someone. He staggered but kept his feet as the individual he bumped into was hurled backward out of a doorway. Two other men, tall, thin, and grotesquely clad towered over him on either side. In a flash he grasped the situation.

He was in the electronic set at A A A O U K into which the three enemies of Steinhilde had already hurried! White hooked an arm about each one and lunged forward through the

opening, taking them with him.

They shot out onto a wide marble platform, or dais. A strange, monstrous, half-naked yellow giant who was standing there leaning on an immense sword, gaped at him in astonishment. Then he whirled up the broad blade savagely and charged. Crack! White's automatic stabbed redly at him. The giant stumbled and collapsed, his nine feet of pale yellow body rolling down the broad marble steps to the floor twelve feet below.

Another yellow giant was closing in from the other side with sword upraised. White had no time to use his gun. He dodged inside the sword stroke and caught the guard a terrific left in the solar plexus that lifted him clear of the floor and hurled him down the stairs.

One of the long skinny men whom White had rushed out of the ball was worming his way back toward the opening. White dived for him. His frantic fingers gripped a skinny ankle. A savage jerk. White's eyes widened in amazement. The long body seemed curiously light as it shot out above the steps and crashed down to the marble floor, well clear of the bottom step.

White whirled about, sparring. The platform was empty except for the sprawled-out figure of the man he had collided with in the ball. White took in his surroundings at a glance.

HE stood on a hundred-foot platform at the end of a vast marble hall, the ceiling of which towered a hundred feet above him, a ceiling painted elaborately with strange scenes. The walls were grandly and beautifully sculptured with weird beasts and distorted buildings and people. Along the foot of both side walls were shining, whirling machines, switchboards, squirming tentacles of heavily insulated wires.

He scarcely noted it all. His eyes were on a vast, rolling slab, much like an overgrown operating table, which stood in the center of the floor not more than thirty feet from him. On this slab lay two figures. One was Steinhilde, bound and helpless but struggling desperately to free himself. The other was the pitiful wreck of an old man mercifully unconscious, his naked body giving mute, hideous testimony of the torture he had endured. Above the table were grouped tall, mummy-faced men in strange costumes staring in stupefied wonder at the intruder on the platform.

One of the kilted figures shook his head angrily to throw off the astonishment that gripped him. He started to aim a long, shining rod at White. Again the automatic pistol barked. The skinny man folded over and crashed to the floor, the rod clattering down beside him.

"White, White, get them!" Steinhilde's voice was wild with sudden, frantic hope. "Don't run for them! Jump!"

White leaped savagely. His big, powerful body left the floor like a rocket, curving over in a gentle arc that brought him crashing into the group. The impact bowled them over like ten pins. There was a terrific flash and roar as the end of the fallen, shining rod exploded. One luckless man who had stumbled into its path dissolved in a puff of smoke and was no more.

Left, right, left, right! White's heavy fists battered them like trip hammers. He felt his victim's brittle bones crack and smash beneath his knuckles. He bored in harder, unmindful of the feeble jabs rained on him in return.

Abruptly he found himself standing alone and gasping, his fists red with blood. The tall men lay about him on the floor, some oddly still and others squirming in pain. Three survivors were streaking it for the doorway two hundred feet away. White's pistol leaped into view. Its bark echoed back from the high ceiling, as the trio dodged to safety through the vast doorway.

"Quick, free me!" Steinhilde's voice was still frantic. "Let Josef alone, I can carry him. Hurry, hurry! They'll be back with a whole company of guards and blast us into nothing. You took them by surprise once, but you can't again! Hurry!"

"Maybe I can reach that big door and shut it," grunted White, struggling with the wires that bound the scientist. "It'd give us more time."

"No, no! Their death rods would cut through these marble walls like a hot

knife through a lump of butter. Grab that sword off the platform and cut these wires."

White's pocket knife was already out. Its keen blade ripped through the bonds that held Steinhilde's ankles and wrists. He rolled off the slab to the floor, fell, and struggled to his feet again. With a mighty heave he threw Josef's limp form over his shoulder and staggered toward the marble steps.

SUDDENLY there burst through the doorway the ominous sound of a distant, moblike roar, the red, flaming rage voiced by a mob. The escaping trio had summoned help. A thrill of fear prickled White's spine. He turned and dashed after Steinhilde, glanced back over his shoulder and gasped.

Fantastic and grotesque as the whole affair had been, he could scarcely believe his eyes now. Through the doorway leaped a huge, strange monster that padded swiftly across the marble floor toward hm. The thing was much like a great anthropoid ape, with a nearly human face, but instead of a single pair of legs it had two pairs, squat and powerful, that propelled it smoothly and swiftly along. It stood ten feet high, with a barrel-like body, huge, bulging shoulders and six-foot arms, a single pair that swung apelike by its sides. The head was flat and sloping, with little, wicked eyes, and a huge, fanged mouth. The body was covered with red, woolly hair.

White jerked up the automatic and took a snap shot at the thing. Yet quick as he had been, the monster was quicker. It leaped sideways as the gun barked, and landed twelve feet away. Steinhilde, feebly nearing the top of the steps with his unconscious burden, twisted his head about at the shot.

"Vacari!" he gasped. "Sort of a gladiator. Specially bred for the games for at least thirty generations, Josef says. This one is from the King's bodyguard. Sent ahead to hold us. We're lost now!"

White set his jaw grimly.

"Just go ahead," he growled. "Fall into the ball. I'll stop this nightmare."

The thing had dropped down to a crouching position with its knuckles resting on the floor and its legs doubled for the leap. White measured the distance. It was nearly sixty feet. The thing was watching Steinhilde as a cat watches a mouse. Feebly the scientist crawled over the top step and approached the ball. A foot. Two feet. Abruptly the thing leaped. Up it shot from the floor forty feet into the air. White's pistol barked twice. Both shots missed the darting body. Down it came with a heavy thud almost upon him. A long, hairy arm whipped round him, pinning his hands helpless against his sides and nearly crushing the breath from his body.

He was lifted off the floor, and the thing ran nimbly up the steps and wrapped its other arm round the frantic, screaming Steinhilde and the unconscious Josef. Then, holding all three of them helpless, it braced itself with squat legs spread wide apart and laughed, a hoarse, coughing rumble of a sound.

White's stomach revolted as the fetid breath of the thing fanned his face. Try as he would he could not wriggle an inch to free his gun hand. He paused to listen.

The ominous roar of the mob outside was swelling. It filled the vast marble hall and beat on their ears. Steinhilde's eyes sought White's in hopeless anguish. They were a scant twelve feet from the doorway of the ball and safety, yet were as powerless to move as though gripped in a vise. Obviously they were to be kept for torture and death, and this thing that held them would be rewarded with a special carcass for dinner and a new wife for capturing them. White turned his eyes again toward the distant doorway.

THE roar was still growing. Hundreds of people must be rushing in to the kill. He stared in fascination. Suddenly there popped through the doorway a small black ball, bounding along fifteen feet in the air at a bounce. He watched it in fearful astonishment. The ball was only a small, terrified, black kitten, leaping, spitting, clawing in terror to escape the roar of the approaching mob. Onto the rolling slab it sprang, then shot up into the air.

Down it came. Down, down, straight onto the head of the vacari, landing

with a flurry of clawing feet as it strove to keep its balance.

The vacari roared in startled fright, dropped its captives and started slapping with both hands at the kitten. Vaguely White saw the vast doorway fill with running figures. He whipped up the pistol against the side of the thing and pressed the trigger twice, then leaped over to pull his two companions out of the way of the falling monster.

Swiftly he ran with first one, then the other to the ball, and threw them in. He turned to look for the kitten. It had sprung from the head of the now dying vacari to the top of the ball and was mewing there in terror.

White looked down at the howling, racing mob. The leaders had struck aside two death rods aimed at him; they wanted to save the ball from destruction. White leaped upward along the curved side of the set. His hands closed about the frightened kitten. As his feet struck the floor again he thrust it into his pocket.

The mob was rushing up the steps now. One veritable living skeleton was several steps ahead of the rest. He was brandishing a sword. White caught his descending arm, snapped the wrist, and hurled the lanky body into the faces of the others, then leaped into the ball.

Again the powerful, upward surge. Before him was a narrow doorway. He leaped through it, stumbled and fell at the sudden heaviness of his body. He twisted about and hurled the pistol into the tangled mass of wires entering the top of the set. There followed a blinding flash as they short circuited with a crackling roar. Something hit White on the head.

"Where's my gat, you—"

White came back to consciousness with the detective standing over him with clenched fists. White stared at him dazedly and gingerly felt the bump on his throbbing head.

"I said, where's my gat!" The detective was in a rage. "What kind of shenanigan business is this, anyway?"

White struggled to a sitting position and swayed there grinning feebly as he pulled something from his pocket.

"I even saved the kitten," he observed. "Steinhilde said it was unlucky. I say it was the luckiest thing that ever happened to us."

The detective spat wrathfully. White's laugh was shaky.

"You're drunk!" accused the detective, shaking his fist. "Listen, you cheap bum, you get my gun back here pronto, or I'll run you in!"

STEINHILDE, who was lying sprawled out nearby, struggled to his feet at the threat and pulled out his wallet.

"Here, Officer," he mumbled, extracting a fifty dollar note. "Take this and buy yourself a new gun. Forget about us."

The detective frowned and muttered, but finally accepted the money and moved away. He paused at the door.

"How about them ashes in the ball?" he demanded.

"Wood ashes from the torture fire to tell them when our set started to receive," explained Steinhilde wearily.

The detective still hesitated, then opened the door.

"I know one thing," he declared in parting. "You birds better sober up and get at it now. One peep about any disturbance around here tonight, and you'll find the wagon backin' up to the door."

Neither White nor Steinhilde paid any attention. They were wrapping Josef in an old blanket and started for the door with him. White had already phoned for a taxi. Outside, the storm was breaking. The clouds overhead had parted to reveal a bit of black velvet sky in which the planet Mars glowed as brilliantly as some rare, flawless jewel. Steinhilde shook his fist at it.

"Curse and rave, you fiends!" he cried, swaying unsteadily. "Struggle for your lives, rot and die on your dying world! Send out your A A A O U K till Doomsday and be damned! Our set is destroyed. You'll never get through here!"

He collapsed suddenly beside Josef, while White dashed back to phone for an ambulance instead of a taxi.

Another SCIENTIFICTION HALL OF FAME Story Next Issue

FROM AUTHOR TO AUTHOR
By MANLY WADE WELLMAN

Permit me to express my appreciation for Edmond Hamilton's "The Prisoner of Mars." Maybe I shouldn't be so happy about it—it isn't easy to follow so good a story, as I am doing with "Giants From Eternity."

I think the best item in Mr. Hamilton's story is the suggestion that there may be understanding—even brotherhood—between dwellers of different planets. I tried, some years ago, to get the same idea across with a story called "When Planets Clashed." Some day, I believe, we'll actually come in contact with peoples of other worlds. When that day comes, I hope we can forget the differences of the peoples, and find the similarities. As a matter of fact, I wish that there was less emphasis on differences among the nations and races of old Terra herself.

Congratulations on the many good things in STARTLING STORIES.—Scotch Plains, New Jersey.

ANALYSIS
By THOMAS S. GARDNER

The third issue of STARTLING STORIES rings the gong again in so far as the novel is concerned. "The Prisoner of Mars" is just about Hamilton's best. A few years ago Hamilton wrote the best short story published in a certain year; it was "The Island of Unreason," in the old Wonder Stories. Then Hamilton wrote a mixture of good and bad stories. His novel in STARTLING STORIES, however, is one of his very good ones, and a sequel would be in order.

Incidentally, with the state of Martian civilization depicted in the novel, without the anti-catalyzer the Martians wouldn't have had a chance with Earth's war forces, especially if they had waited a couple of years for the armament race to get under way. Also, since life is also an oxidation process, wouldn't the anti-catalyzer kill anyone within its radius, too? I think it would; if it could keep gasoline from oxidizing or powder from exploding. Anyway, I am always glad to see Hamilton.

Weinbaum's story was a gem, and I really enjoyed rereading it. THEY CHANGED THE WORLD, THRILLS IN SCIENCE, and the Guest Editorial were good.

Manly Wade Wellman's "Giants From Eternity" sounds interesting. I analyze it as follows:

It would be impractical to go too far back into time to get scientists to help out in a crisis. They would have to be familiar with modern methods of analysis and experimental technique to be of any value. Thus one of the greatest minds of all times would have to be ignored. I refer, of course, to Archimides.

For mathematician, old Hilbert of Germany, who died a few years ago, would be excellent. He not only invented a large part of modern mathematical theory but improved every field he touched.

The greatest inventor was Thomas A. Edison. I believe that everyone will agree to that. Your forecast mentions a plague from space, and who would be better to combat it than that giant of bacteriology, Louis Pasteur! There's your biologist.

The visionary anthropologist would be Henry Fairfield Osborn, who was more than just an anthropologist. He had the imagination to handle any problem.

The most difficult to select would be the physicist. Frankly, there were so many giants in physics that one could pick several and still not touch the mediocre ones. Think of Newton, D'Alembert, Euler, Biot, Maxwell, Faraday, Hertz, Mach, etc. However, I believe that I would select the man who practically invented a half dozen fields in science in addition to the one of vector analysis—J. Willard Gibbs.

It will be interesting to compare my list with Wellman's. I am looking forward to reading his novel.—903 John Jay Hall, Columbia University, New York, N. Y.

THE ETHER VIBRATES—with the letters sent in by loyal followers of science fiction. Add your voice! This department is a public forum devoted to your opinions, suggestions and comments — and we're anxious to hear from you. Remember, this is YOUR magazine and is planned to fulfill all your requirements. Let us know which stories and departments you like — and which fall to click with you. A knock's as welcome as a boost—speak right up and we'll print as many of your letters as possible. We cannot undertake to enter into private correspondence. Address THE ETHER VIBRATES, STARTLING STORIES, 22 West 48th St., New York, N. Y.

BREATHE, PAL!
By GEORGE AYLESWORTH

The May issue of STARTLING STORIES has been duly perused and gloated over. Hamilton's booklength novel, "The Prisoner of Mars," was very good, but I doubt if you can ever surpass that memorable first issue.

I had read "Pygmalion's Spectacles" before, but enjoyed reading it again. May I suggest for Scientifiction's Hall of Fame "Seeds From Space," by Laurence Manning, and "Dweller in Martian Depths" by Clark Ashton Smith? I'm eagerly looking forward to your next issue with bated breath.—Box 686, Mackinaw City, Michigan.

THAT FIRST ISSUE AGAIN!
By N. WILLMORTH

I have just finished Hamilton's yarn, "The Prisoner of Mars." It's pretty good. Better than the average of his stories, I believe.

STARTLING STORIES is keeping up its fine standard o.k. Of course, the first issue has been far the best so far. However, the departments have been bettered somewhat, and your shorts are raised a notch by such tales as "Pygmalion's Spectacles."

Say, I'm all for a Carlyle-Quade-r, featured in S. S. Take a vote. It's bound to be a hit. —Rt. 1, Winesap, Wash.

"ODYSSEY" COMING SOON!
By ROBERT S. FRIEDMAN

I didn't particularly like long science fiction novels until I read Edmond Hamilton's "The Prisoner of Mars." After that, well, I changed my mind. To make a long story short, it was magnificent. The story's dramatic interest kept me in thrilling suspense

throughout. Ever since I have been reading science fiction this is the type of story I've been waiting for.

I heartily approve of your Hall of Fame department. It brings back never-to-be-forgotten memories in the minds of all s-f fans.

By all means keep on using Artist Finlay. He puts real life in his illustrations. I missed him in your May issue.

I have one nomination for the Hall of Fame. It is "A Martian Odyssey," by Stanley G. Weinbaum. I missed it when it first appeared and naturally, after hearing so much about it, I would like to reread it.—Clarkdale, Miss.

HAMILTON'S MASTERPIECE
By NORMAN BIRNBAUM

"The Prisoner of Mars" was one of Hamilton's best. The science in it seemed very plausible, in view of the recent work of our own scientists on Earth. However, you could cut down on the daring-hero-saves-Earth-gets-gal idea and give us more stories like "The Black Flame." Also a novel or two with present-day Earth as a backgrouhd.

Taine could write a grand novel for you if you got after him. So could Merritt. However, I think your plan of printing novels is something that s-f needed for a long time. Incidentally, I am interested in corresponding with fellow fans.—1056 Sherman Ave., Bronx, N. Y.

BLUE RIBBON FOR WESSO
By KARL KLONDIKE

Just finished "Prisoner of Mars." It is second to none that you have published in your three issues. "Hall of Fame" is a good idea, although I have read two of the classics before. Give Wesso the blue ribbon for his illustrations for "Prisoner of Mars." They're the best he's done in quite a while. Why not add a swap column, as in THRILLING WONDER STORIES? "The Impossible World" was Binder's best to date. And of course I can't add anything new to the praise given Weinbaum's novel. It was superb.

If you keep up the present pace, it won't be long until I and many others will start demanding that STARTLING STORIES appear at least once a month.—1219 W. Largent St., Harrisburg, Ill.

BOYCOTT CARLYLE-QUADE?
By ARNOLD WOOD

Another smashing issue of STARTLING STORIES. I certainly enjoyed "The Impossible World," beyond doubt Eando Binder's best work. "The Man From Mars" was a beautiful story and one well worth publishing again.

"The Fear Neutralizer"—shades of Weinbaum! This was a typical Van Maderpootz yarn, very well told. You can serve me one up like this with every issue. The next time you run a Hamilton novel, why not make it a Hamilton issue by publishing his "Island of Unreason" in your Hall of Fame department?

Please, Ed., don't bring Quade and Carlyle into STARTLING STORIES. I'm against T. W. S. characters in this magazine.

Virgil Finlay is very good, but not quite as good as Wesso. His drawings reproduce a little too dark. In closing, I would like to add my vote for novels by such authors as James M. Walsh, John Beynon Harris, Festus Pragnell, Neil R. Jones, Laurence Manning, J. Harvey Haggard, and other old-timers.—12 Carrill Grove East, Lanchester, England.

ALL-STAR LINE-UP
By RICHARD IRWIN MEYER

Well, the May issue of STARTLING STORIES almost proves that the mag is here to stay. Hamilton did a fine job with "The Prisoner of Mars." So far the line-up of authors in STARTLING STORIES has been splendid. Weinbaum, Binder, Hamilton, and in the next issue, Manly Wade Wellman. The advance forecast for Wellman's novel, "Giants From Eternity," indicates a pretty good story, one that should contain a great deal of suspense.

So far the stories published in the Hall of Fame have all been excellent. I also appreciate your policy of reviewing the fan magazines. Being a bit of a fan myself, the column aids me greatly in suggesting which fan mags to read.

Let's have stories by Jack Williamson, Nat Schachner, Donald Wandrei and R. DeWitt Miller.—3156 Cambridge Avenue, Chicago, Ill.

CLASSICS APPEALING
By SAM YAMPOLSKY

The second issue of STARTLING STORIES held the excellent pace that the first one established. The cover and the two illustrations by Marchioni were not outstanding, by the way. The layout of the contents' page was much improved.

"The Impossible World" would have been just above average if it had been divided into serial installments. As it was, it will remain in my memory as an outstanding interplanetary yarn. The planet adaptation idea was very interesting. How about another story from the Binders on this theme, from the viewpoint of the adapted colonists?

The illustrations by Finlay were very good; the dark settings were very effective. Best ones were those on pages 29 and 27.

The two biography departments raised the quality of the magazine quite a bit. Especially noteworthy was the THRILLS IN SCIENCE personality portrait of Galois. His name, unknown to the world, should rank with the great of mathematics.

"Turnabout," the short short by Will Garth, was okay. The classic short in this issue was very appealing. While very good throughout, it was the last paragraph of "The Man From Mars" that gave it its punch. All in all the magazine rates high in the list of those specializing in science fiction. Keep up the good work.—240 Austin St., Winnipeg, Man.

PAGING MR. TAINE!
By LANGLEY SEARLES

Although I can't honestly say that the March issue of STARTLING STORIES is as good as the January one, it's a long, long way from being a bad one. "The Impossible World" is well-written, even if it has a somewhat hackneyed theme; and "The Fear Neutralizer" seems to indicate that Hamilton can be relied on to furnish more s-f stories with a humorous slant. Am I right?

Here are a few nominations for the Hall of Fame: D. D. Sharp's "Day of the Beast" (May, 1930, **Science Wonder**); J. Harvey Haggard's "Faster than Light" (October, 1930, **Wonder**); and "The Gravitational Deflector," by H. D. Parker (**Science Wonder Quarterly**, Fall, 1929). All of these are, I believe, short enough to be used.

Aha! When you picked out Virgil Finlay to do some illustrating you picked a real artist, and no mistake. There's no denying that he captures the real s-f mood. But why not put the illustration for Chapter One beside Chapter One, instead of in the middle of Chapter Thirteen? And the same for all the other illustrations. It's rather pointless, in my opinion, to print the pictures in the middle of chapters in which they don't belong.

Julius Pohl has the right idea about keeping T.W.S. characters out of **Startling Stories.** Each magazine should keep its own individual characters; in that way you'll be pleasing a wider variety of readers' preferences. So keep Penton & Blake, Gerry Carlyle, Tony Quade, etc., well corralled within the bounds of THRILLING WONDER STORIES.

I imagine reviewing all the s-f fan publications keeps ye editorial nose down to the grindstone quite efficiently. It's a fine idea, though, and you always have the consolation

of knowing that there must be a limit to their number. (Sometimes I wonder!—Ed.)

Now, a suggestion: you certainly must know that there are half-a-dozen John Taine novels waiting for publication. If you've read any of his works, you know they're top-notch; so how about considering (or reconsidering) printing one or more? If they are science fiction, **Startling Stories** is the place for them! How about it?—19 East 235th St., New York City.

TRAPPED BY THE FLAME

By JACK C. DEAN

I wonder why I have let so much time get away from me? I meant to write about STARTLING STORIES right after the first issue came out. The third will be out soon and I'm just getting started.

No story to come in S.S. will ever equal "Black Flame." It had everything. I got trapped in it. I usually take my goodly time about reading a magazine, but when I started on that novel it was impossible to stop until the finish, sometime after two-thirty in the morning. Margaret, O'Connor, Evanie, and the whole gang were all just as real as my relatives. A long novel like that is great for characterization. I'll remember those characters for a long, long time.

I like most of Binder's work, and his novel was an interesting bit of reading, not so gripping as "Black Flame," but nevertheless a great story. Traft was a much liked character, with his constantly clicking camera. That got me in a way. He was snapping away with a camera at times when most men would want to be blazing away with a gun. The gal in the story was rather vague. I can't even remember her name. The Space Scientist was a memorable figure, though.

Before S.S. came out I decided to concentrate on the novel alone and utterly disregard all illustrations, Wesso or not; but Finlay's work is rather attractive. I had to notice it. The x-word puzzle sure is a find. The scientific words were the only ones I was ever able to get in the regular ones and now I get one with nothing else but scientific terms in it. Thank you.—53 Shrewsbury Ave., Red Bank, New Jersey.

ANTON YORK NOVEL?

By BLAINE R. DUNMIRE

The second issue of STARTLING STORIES was certainly a peach. The new illustrator, Virgil Finlay, is not good, not bad, but much better than Wesso. Your best and only illustrators are Alex Schomburg and Marchioni. Why not let Schomburg do the next book-length, and Marchioni the next, and so on?

P. Schuyler Miller's idea about Orson Welles' script of H. G. Wells' "War of the Worlds" is a swell idea. However, I doubt very much if you will be able to get it. But it would be great if you would circulate a letter from fans and writers to Mr. Welles complimenting him on a great job.

The book-length novel by Binder in this issue was excellent. Hamilton's "The Fear Neutralizer" was a fine little story. I could not help notice that the writers of future novels in STARTLING STORIES have a short story the issue before they have a book-length novel appearing; see what I mean?

When thumbing through THE ETHER VIBRATES I saw a letter that asks that you do not use T.W.S. characters in STARTLING STORIES. Why not?

Before I close, I wish to nominate "The Martian Odyssey" for Scientifiction's Hall of Fame. And when will you get Binder to write a book-length novel of Immortal Anton York? Good Luck!—414 Washington Ave., Charleroi, Penna.

Coming in the August Issue of Our Companion Scientifiction Magazine

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RACE AROUND THE MOON

A Complete Novel by OTIS ADELBERT KLINE

•

THE WARNING FROM THE PAST

A Novelet by ROBERT MOORE WILLIAMS

•

THE MAN FROM XENERN

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Thrills in SCIENCE

Thumbnail Sketches of Great Men and Achievements

By MORT WEISINGER

THE GREATER MAGIC

"CALLING Dr. Connors . . . Calling Dr. Connors . . . " Nurse Walker's voice echoed sharply down the corridors of the Scottish hospital. "Calling Dr. Connors . . . Emergency in Ward Six!"

Young Dr. Connors pushed away the compound microscope before him, rose eagerly to his feet. "Ward Six . . . an emergency." That meant—but no, it was too much to hope for; they wouldn't let him operate. He was too young, too inexperienced. He had only been an interne for seven months. True, there were many times when he had assisted the older doctors on serious operations. But never had he been permitted to wield the knife himself in a major operation. Maybe this time he would get his chance.

As young Connors entered the small emergency room, the blood thrumming in his veins, Dr. James Simpson, the prominent surgeon, beckoned to him.

"Look, my boy," the eminent surgeon said gently. "A human life is at stake." He pointed to his right, where the slim, white figure of a young girl lay still on the operating table. "Ruptured appendix," Dr. Simpson announced simply. "A few swift strokes with the knife—some expert suturing—

Dr. James Simpson

plenty of antiseptic—and you'll have scored your first big medical victory. All the other doctors are off duty. Do you think you can handle the job?"

Young Dr. Connors' eyes brightened. There was a lump in his throat. Here, at last, was his chance!

"Thanks, sir, for your faith in me," he managed to force out finally. "I won't fail you!"

Confidence surged in young Connors' heart as he prepared for the operation. Why shouldn't he be successful? He had seen scores of appendectomy operations, had assisted in dozens of them. You just had to be careful. Take it easy, that was the secret. For the slightest slip of the knife, the merest careless move—and it was all over!

"Scalpel, please," Connors called professionally as the operation began. An assistant handed him the shining blade, and Dr. Connors began an incision in the iliac region of the abdomen. As he continued with the operation, delving expertly into the peritoneal cavity, Dr. Simpson nodded approvingly. The lad was good; his success as a brilliant surgeon was certain.

Suddenly the nurse's shrill voice broke the deep silence. "Dr. Connors," the nurse screamed out. "Your patient—oh, my God!"

Fear, icy talons of fear, gripped at Connors' brain. He knew what was happening, but he didn't dare look. If he took his eyes away from his hands for even a few brief seconds—

"Dr. Connors—*she's coming out of it!* The anesthetic's worn off—and we haven't any more on hand!" the nurse cried out hysterically.

And then it happened. The young girl's eyelids fluttered open, her body twitched violently in one spasmodic shock. Her face, as white as chalk, seemed ridden by incredible pain—torturing, unendurable pain.

Dr. Connors' first patient gave a little cry—then closed her eyes forever. The knife had won another victory—but it was Death's scythe this time.

The young interne began to sob.

"Science! Wonderful science!" he cried

hoarsely. "Curse the science that stole this girl's life, that won't let us discover a safe anesthetic!"

The understanding Dr. Simpson patted the boy on his shoulder. "It wasn't your fault," he said comfortingly. "I've seen this happen many, many times. My mind is haunted by the screams of dying patients who have become conscious under the knife. And all the scientists here in Scotland—and all over the world—can't do anything about it. Our anesthetics are crude, unpredictable, dangerous to employ. Surgery is scientific magic, but we need a still greater magic—the miracle of a safe anesthetic. Some day . . . some day I hope to do something about it!"

The years sped by. Dr. Simpson was now Sir James Young Simpson, president of the Royal Medical Society in England. But he had never forgotten such scenes as had taken place in the operating rooms of the Scottish Hospital, nor the disrupted surgical career of the young interne. Alone in his laboratory one night in March, his eyes wandered meditatively to the calendar. 1847! For more than five years he had been experimenting, searching for the catalyst that would accelerate the science of surgery—the perfect anesthetic.

Fondly, he fingered a small glass vial on his desk. A chemical analysis indicated that the stuff contained in this little bottle might have pain-killing qualities. But it had never been administered to a human being. For some anesthetics were too good—they did such an excellent job that the patient never woke up.

Dr. Simpson tapped the bottle lightly on his desk, studied its mysterious contents quizzically. Did it possess the potentialities of being the world's only safe anesthetic? Well, he decided, a strange light in his eyes, he would never know unless he tried it.

Dr. Simpson called in two assistants. Ignoring their protests, he calmly instructed that the new anesthetic be given to him, that he be its first victim.

"Sprinkle the contents of this bottle on a towel," he ordered. "Then hold it over my face. I will inhale its fumes until I am unconscious. Stick a needle into my feet . . . see if the pain awakens me."

Dr. Simpson inhaled deep drafts of the drug. He sucked in the sickening, sweetish odor until he thought his lungs would burst. Suddenly the room began to spin . . . he saw streaks of light snaking their way in every direction . . . Then he fell into a deep, heavy slumber.

To his frantic assistants, it seemed an eternity before they were able to revive him. Dr. Simpson had taken so much of the new drug he had almost killed himself.

The annals of medical history record the results of this experiment. Dr. Simpson's new anesthetic was a complete success. It was immediately given to the world. Today, the anesthetic Dr. Simpson had risked his own life to perfect is known everywhere under its scientific name—chloroform.

Dr. Simpson had found the greater magic.

THE FORGOTTEN MAN OF SCIENCE

IT was many hours past midnight. Alfred Russell Wallace dipped his pen into the inkwell on his desk, then wrote hurriedly, assuredly on the sheet of paper before him. Soon the page was done. Wallace leaned back in his chair, let the pen drop from his cramped fingers.

A glow of pleasure illuminated his red-rimmed eyes as he re-read what he had written. There, he was almost finished, he told himself. For three days he had labored thus, writing furiously with the fire of a madman. He would not be content until his manuscript was entirely finished, his original theory of evolution recorded for the study of his fellow scientists.

Dawn came slowly that morning. The pale-streaked horizon had just broken as Wallace penned the last few strokes to his great essay. He sighed wearily. There was but one last thing to do now. It would be a pleasant task. He might as well attend to it this very minute.

Since three days ago, when he had conceived his great theory, Wallace had locked himself in a room, intent on preparing it for the eyes of the world. The theory burned in him, clamored for expression. It was new—it was daring—it would hurl a bombshell into the scientific front. It was the epoch-making theory of the origin of the species and the survival of the fittest through natural selection.

Only three days ago Wallace had read a paper by Malthus, called "Essay on Population." This paper had kindled a spark of imagination in Wallace's brain, exploded a reservoir of unrelated facts that hitherto science had been unable to dovetail. Now Wallace saw them together, motivated.

Wallace sighed with satisfaction as he weighed his heavy manuscript in his hand, the results of his many hours of labor. Well, he had finally got it all down on paper, just as rapidly as it was humanly possible to do so. And now there was but one thing left to attend to—to send it to the man whose reputation as a scientist and naturalist he respected more than any one else's in the world. He wanted this eminent naturalist, his respected colleague and friend, to check his theory. More than that, he wanted to share his secret with the scientific world.

He stifled a yawn. Lord, he was tired! Mechanically he reached for a sheet of his personal stationery, began a letter. What was the date? February 8, 1858? No, it was February 9th now—morning had come. He thought for several moments before be-

ginning to write, his pen poised in mid-air, then his weary hand raced down the page. Wallace next reached for an envelope, addressed it with the name of his friend: "To Charles Robert Darwin, Esq."

Five days later, Charles Darwin gazed speculatively at the thick envelope the mailman had just brought him.

"Ah—this is perhaps some magazine article my friend Wallace wants me to read," he said aloud to the postman as he tore open the sealed envelope. There was nothing—absolutely nothing—to warn the great Darwin that the thick manuscript that tumbled out of the envelope contained a message so electrifying in import that its findings would rock civilization, and his very own soul to the core.

Darwin smiled as he studied the first page of his friend's manuscript. The handwriting was so neat, so important looking. Perhaps, too, the communication would be as equally important. He would not read it now. He had his own work to do, his own papers to write. He would read it later, when he had his tea. . . .

An hour later, over a steaming cup of tea, Darwin fixed his pince-nez glasses over his face, picked up the manuscript. His practiced eye read swiftly, taking in long paragraphs almost at a glance. Suddenly the scientist's face went pale. The cup of tea fell to the floor, smashed to bits.

"It can't be—" he cried out incredulously. "The coincidence is too great—" His gaze was blurred now, but one sentence in the manuscript leaped out at him as though the words were spelled in letters of fire: ". . . . I considered the three-fold clue of the struggle for existence, of constant variability, and of the selection of variations which happen to be adaptative. . . ."

Charles Darwin let the manuscript fall to the floor, and his heart sank with it. It couldn't be—but it was! For fifteen years he himself had been working on a great theory—the origin of the species—a theory destined to explain the mysteries of evolution. He had traveled for five years around the world, gathering scientific evidence of various forms of life as proof of his theory. Why, just five minutes ago he had been working on his paper, preparing it for publication. Now here was his friend, Alfred Wallace, with the identical theory, the exact same premise and conclusions! The coincidence was unbelievable.

There was only one thing he could do. Darwin sat down, began a voluminous letter of explanation to his friend in which he congratulated him on his brilliant essay, and commented upon the striking similarities between their two theories.

Back in Ternate, Alfred Wallace was amazed to learn about the uncanny coincidence. He sighed enigmatically, reached once again for a sheet of paper.

"Dear Friend Darwin," he wrote. "Science should—and shall remember this great theory as *your* work. I deliberated on this theory for only three days. You, for fifteen years. I insist that the respective proportion of credit should be in the ratio of fifteen years to three days." So did Wallace relinquish his claims for fame.

But Charles Darwin was not content to reap the fruits of his labors so easily. Though this same theory had occupied his every spare moment for the last fifteen

Alfred R. Wallace

years, the scientist's soul cried out that it was unjust. The world must honor Wallace, too!

A mutual friend arranged for the papers of both men to be published together in a scientific journal on July, 1858. Both papers were then read at a meeting of the Linnaean Society. At the conclusion of the meeting, Wallace walked over to the older Darwin, tapped him lightly on the shoulder.

"My friend," he said softly, "let us call this new theory 'Darwinism.' It is so much easier to say than 'Wallacism'."

Years later, the world had forgotten Wallace, but still remembered and feted Darwin as the author of the theory of evolution.

And alone in his study, Wallace, the man who had scorned everlasting glory of his own accord, so that science might progress, re-read wistfully a brief letter from the great Darwin, a letter whose every word he now knew by heart, a letter worth more to him than the price of an empire.

"There has never been passed on me, or, indeed, on any one, a higher eulogism than yours," it said. "I wish that I fully deserved it. Your modesty and candour are very far from new to me. Your friend, Charles Darwin."

Alfred Russell Wallace folded the tattered letter, placed it back in his desk. He stared off into empty space. He was happy. He balanced the spiritual enrichment gained by his unselfish sacrifice against his worldly loss, and was content. [*Turn Page*]

THE NEW POWER

"HAPPY" DAN ANDREWS, vice-president of the Eastern Railroad Company, was a big shot. And being a big shot, he could afford to keep his fellowmen waiting. So, coolly ignoring his impatient visitor, he extended his feet on the oakwood surface of his desk, cast an appreciative glance at the splendid shine of his patent leather boots, and drew out an expensive silver cigar case from the breast pocket of his neatly pressed checkered coat.

There were four cigars in the case. Mr. Andrews selected the one at the extreme right, snapped the case shut, jammed the cigar into his mouth. Slowly, deliberately, he went through the process of bitting off the tip of the cigar, striking a match.

As he inhaled the exhilarating tobacco aroma with obvious relish, he held up the charred match to his visitor. Then, blowing the smoke out into the face of the stranger in the room, he threw the withered match into the fireplace.

"And that, Mr. Westinghouse," the railroad tycoon said tersely, "is exactly what you should do with the plans for your invention! Burn 'em up—throw 'em away!"

Young George Westinghouse bit his lip nervously. His face turned a furious crimson. Tall, boyish, barely out of his teens, he was painfully discovering that businessmen all over the country shared one common belief—they were convinced that all inventors were crazy.

"Use your imagination, Mr. Andrews," the twenty-three year old Westinghouse pleaded. "My invention will revolutionize the railroad industry. I tell you it's practical. Just give me a chance!"

"'A chance!'" echoed the railroad magnate thunderingly. "A chance to wreck a locomotive and half a dozen cars, you mean! Why don't you ask me to give you two thousand dollars? I'm sorry—but your idea is as fantastic as the submarine Jules Verne writes about in his latest book, 'Twenty Thousand Leagues Under the Sea.'"

Mr. Andrews patted the immaculate crease of his trousers, busied himself with the signing of some correspondence. The interview was over.

Westinghouse was halfway out of the office when he heard the vice-president of the Eastern Railroad muttering aloud to himself.

"The blasted idiot," the magnate was exploding angrily. "Trying to tell me he could stop a train going sixty miles an hour—instantly—with air!"

"But I can do it," Westinghouse said under his breath as he slammed the door of the railroad czar's sanctum sanctorum shut. "Compressed air can drive drills through rock. That same power can operate the brake of a car. Compressed air will not condense or freeze, as does steam. And its power could be transmitted with perfect ease throughout the longest train. If only they would let me demonstrate. . . ."

Young George Westinghouse was a dynamo of energy. Convinced of the feasibility of his idea, determined to see it proved successfully, he made the rounds of every railroad company accessible.

And always came bitter discouragement, heartbreaking defeat. Then, one day, just as he was about to give up in despair, came his first break.

W. W. Card, of the Panhandle Railroad, studied the clean-cut features of the youth standing before him. He admired the serious eyes of the lad, his strong sincerity.

George Westinghouse

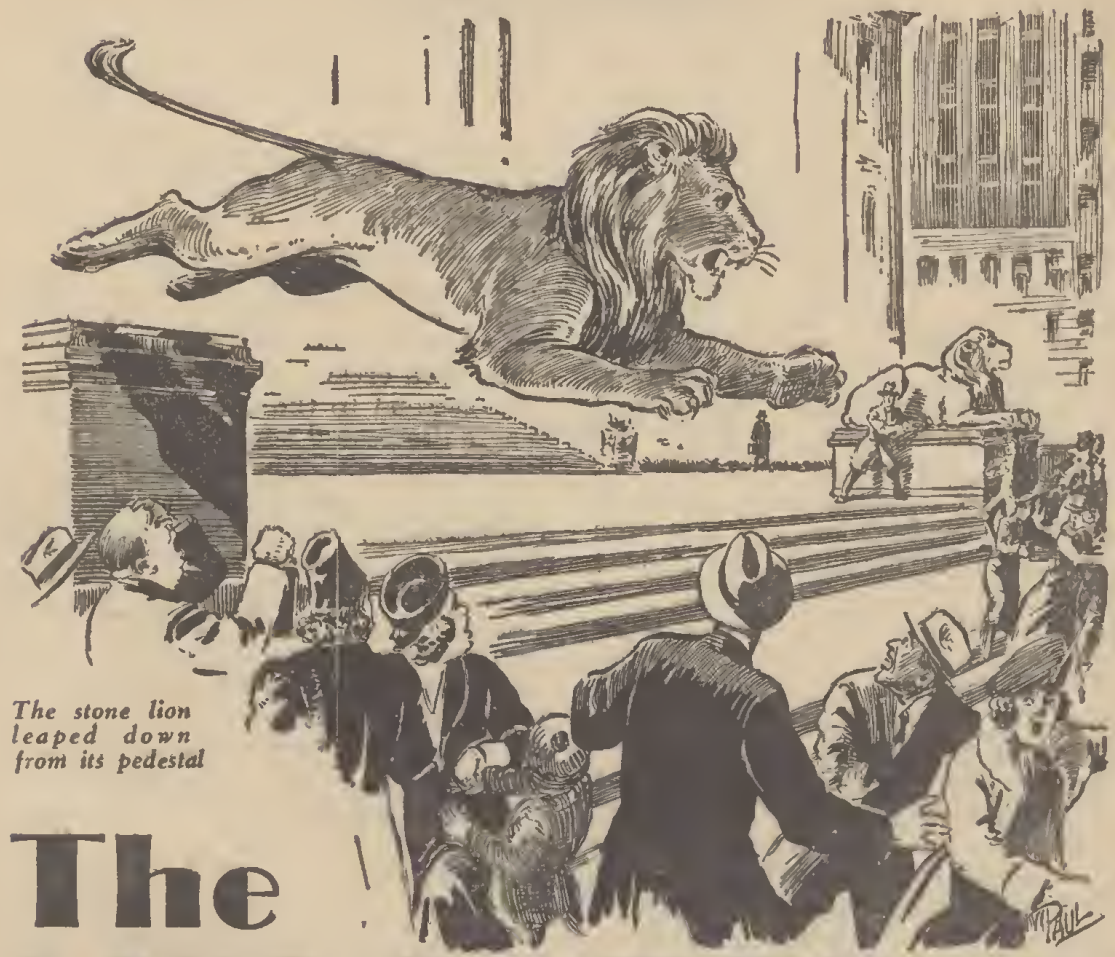
"I believe in you, Westinghouse," Mr. Card told the boy. "Maybe my associates will call me a fool, but I think you've got something big. Try your air-brakes on one of our railroad trains. You say your brakes can make a train stop on a dime and give change? All I can say is—they'd better!"

A week later, one bright spring morning in 1869, a six-car train pulled out of the Pittsburgh station of the Panhandle Railroad. Hot blasts of wind from the firebox whipped the leathery face of the engineer as he opened up the throttle, accelerated the speed of the train.

The wheels clicked smoothly on the steel rails as the locomotive pulled the iron freight faster, faster into the distance. The mighty pistons gathered momentum, the whistle shrilled sharply, and the train was off on one

(Concluded on page 129)

An Elderly Doctor Harnesses the Forces of Science—and Dies Twice in a Lifetime!



The stone lion leaped down from its pedestal

The LIFE BATTERY

By EANDO BINDER

Author of "The Impossible World," "The Jules Verne Express," etc.

THE museum was quiet. It was especially quiet in the Egyptology room, where numerous mummy cases were on display. People generally feel awed in the presence of antiquity and the signs of ancient death, and the few persons who were in the room this bright, sunny morning spoke in whispers, as though fearing to wake the long dead.

They were clustered about the prize exhibit, the gnarled, misshapen naked-brown mummy of Ank-Ra-Isar, king of the Ninth Dynasty of ancient Egypt, clearly revealed in an upright glass case.

A uniformed attendant, rocking back and forth gently on his heels, with hands behind his back, amused himself by thinking how amazed the spectators would be if the mummy blinked its eyeless sockets and came to life. But no use to think of that, he told himself, for such a downright, impossible miracle would never happen—

Yet happen it did!

Among the spectators, two old maids turned pale, shrieked, then began to run. A young man swept up his gasping sweetheart and staggered toward the door. It became a stampede.

Startled, the guard rushed over to see what had occurred to frighten these people. The mummy of Ank-

Ra-Isar, in its glass case, was performing a series of incredible movements. Its hinged jaw waggled up and down. Its folded arms unbent and beat a tattoo on the glass cover, as though it were begging to get out. All these motions were accompanied by a horrible dry rustling sound that seeped out of the case.

The inevitable happened. Joints and ligaments that had been rusted together by time broke apart. Fractures appeared all over the mummy, exposing gaping holes. Scales and impalable dust showered over the writhing figure and settled slowly.

In another moment the mummy became an amorphous heap of shattered bits that piled up in the lower part of the glass case. The mummy of Ank-Ra-Isar now was nothing more than a small mass of dessicated debris that heaved and trembled with some alien horror of pseudo-life.

The guard ran too, yelling bloody murder. Presently there was no one left in the room but an old, thin man with a square black case. He stooped and twisted a tiny knob at the side of his case. The mummy shards inside the glass case ceased their unholy dance and became inanimate debris. Smiling strangely to himself, the little old man shuffled out of the room, his right side weighted down with the black bag.

TWO hours later the sun was still shining as brightly on the two stone lions guarding the portals of the New York Public Library. A steady stream of people passed the graven images without a glance. An out-of-town tourist, however, stopped before one of them and examined its contours in small-town wonder. He took out his camera, focused it, and brought the images into the center of his finder. He was a large fat man and rested the back of the camera against his ample stomach.

Just as he was ready to make the snap, something moved. Remembering that he had ruined several other pictures by holding the camera against his sometimes treacherous stomach, which magnified every quiver of his obesity, he moved the camera slightly away. Again the image in the finder made an unaccountable movement. Annoyed, he glanced up.

His three chins folded together like an accordion as his lower jaw sagged loosely. His eyes bulged. For the stone lion was coming to life!

The stone seemed suddenly to have gained a fluidity that allowed it to move without splitting abruptly. The sculptured creature arched its back—so it seemed to the fat man's frantic imagination—and snarled at him with lips drawn back. Then it wobbled and leaped down from its pedestal.

Screeching, the tourist threw his camera at the nightmare creature of stone and raced away.

Some few of the passing crowd had been glancing at the stone lion simultaneously. They had seen it tremble on its base, crack in several places and totter to the sidewalk, shattering in a thousand pieces.

A thin, cadaverous-faced man in a brown suit, who had been standing on the grass at the other side of the stone lion, stooped and twisted something on his black bag and then strode leisurely away, smiling queerly, sardonically.

LEE HACKETT turned a page of his newspaper. "Queer things happen in this world," he thought to himself. On the third page some enterprising reporter with imagination had headlined MIRACLES SWEEP CITY! He had listed them—"The Dancing Mummy," "The Slithering Rope," "The Hungry Stone Lion," "The Wandering Bicycle," and "The Walking Clothes." There had been several eye-witnesses to each incident so their authenticity was undeniable. No explanation was offered.

"Miracles, huh!" Hackett said aloud, "I'm from Missouri."

He arose and crossed the room to his dresser, puzzling over the item. Then he shrugged and began whistling. He had a date that evening and couldn't bother with so-called miracles.

Hackett tried to subdue his unruly

hair with the hairbrush. His girl liked it slicked down as much as possible. Suddenly the brush seemed to writhe in his hand. Startled, he lowered it in front of his eyes. It *was* moving! The bristles were tangling and the wooden holder was slowly bending by itself. Hackett dropped the brush, gasping.

The brush fell to the dresser top on its back and, before the astonished watcher's eyes, began digging into the wood it lay upon. In a short time the edges of the brush had merged into the surface of the dresser top. Then suddenly it was over and the brush lay once more quiescent.

Lee Hackett was not the sort to become panicky. Instead he reached gingerly for the handle and attempted to pick up the brush. It was rooted fast to the dresser top.

"Holy mackerel!" he said. "How will I explain this to my landlady?" He glanced at his somewhat pale face in the mirror. "Wait a minute. First of all I've got to explain this to *myself!*"

Hackett went through a process of ratiocination that convinced him an outside agency must have been responsible. The open window was the only possibility. Suddenly he remembered that just as the hairbrush had begun acting up, he had glimpsed a bright flash out of the corner of his eye.

He stuck his head out of the window and looked across the narrow courtyard. He saw the flash again, caused by the sinking sun shining on something bright within the open window directly across. A thin face withdrew into the shadows of a room.

"It's that old crackpot doctor across the way," Hackett told himself, half angrily. Without further ado, he left his room, went downstairs, crossed the courtyard and tried the door of the ramshackle old frame house.

Just over the door, a weather-beaten old sign with faded gilt lettering said: "Dr. George Henry, Physician."

The door was locked. Just as Hackett was about to knock a bolt grated and the door swung inward on squeaking hinges. Beyond the fact that Dr. Henry lived alone in the house and was some sort of recluse experimenter, as well as a physician, Hackett knew nothing of the man now confronting him.

Dr. Henry was short and thin, unhealthy of complexion, sunken-chested.

"I saw you coming," he said calmly. He coughed hollowly before he went on. "Come in and I'll explain about your hairbrush." There was a saturnine grin on his thin lips.

"The hairbrush itself is unimportant, but I do have a certain amount of curiosity," said Hackett, his anger evaporating. He introduced himself. "It's the first hairbrush I've known that acted as if it were alive."

"Alive?" echoed the wizened old doctor. "Perhaps you aren't so far wrong!" He laughed shortly and led the way up a winding staircase whose bannister was thick with dust.

On the second floor hallway two doors were open. From one came the twittering of little animals — guinea pigs. At the second door the old doctor stopped, motioned Hackett inside. The Doctor snapped on an electric light.

Hackett was surprised to see a rather modern-looking laboratory. Most of the apparatus was unfamiliar to him but he sensed it was a biological workshop with its microscopes, large glass-lined oven and rows of jars filled with cultures. There was also some electrical apparatus. The affair resting on a table near the window looked like a common storage battery with a strange mirror attachment at the end of it.

The emaciated doctor pointed to this and Hackett saw that the mirror was in a line with his own window across the courtyard.

"With that instrument," said Dr. Henry, "I caused your hairbrush apparently to come alive, more or less as a whim. And partially as a whim, but more as a test of the instrument, I created the miracles the papers have exploited—the 'Hungry Stone Lion', 'Dancing Mummy', and the others."

DR. HENRY waved a thin, delicate hand.

"It was quite easy to perform these 'miracles'. This battery fits nicely in the square black case next to it, with a hole in it for the switch. The connecting hose I had hidden beneath my coat, and the projecting lens was tied to my chest, also hidden by my coat when buttoned up. In each case, I simply stationed myself at the proper angle, snapped the switch and allowed the focused beam to play upon the object desired."

"Beam? What sort of beam?" queried Hackett, his curiosity thoroughly aroused. "Some beam of energy that destroys matter?" he hazarded.

The old doctor's eyes glinted oddly as he answered.

"Yes, and no. It won't destroy matter, but it *is* a beam of energy—of *life*-energy! Your first guess was right, that your hairbrush was *alive!*"

"I can't quite swallow that, Doctor," Hackett said slowly. "Inanimate things can't display life."

"What is life?" asked Dr. Henry rhetorically, eyeing his visitor with a faintly amused expression. "It is a dynamic equilibrium maintained in a unitary, semi-isolated system—which means that life has the *ability* to motivate certain vital functions. But that doesn't say what life *is*, any more than saying electricity runs a motor explains its true nature."

Hackett realized the little, shrunken man before him was not the unkempt crackpot he looked. There was a keen, scientific brain behind those drawn, ascetic features.

"Well?" he prompted.

"Life is just one thing," stated Dr. Henry, leaning forward a little. "*Consciousness!* The consciousness of existence. So-called animate, living matter is different from non-living matter only in realizing its own state of being. The living cell—which is the unit that makes up all life in its grosser forms—is aware of its existence—has consciousness. Yes, every amoeba, paramecium and algae-cell knows it is alive. Every crystal, colloid, crystalloid and lump of amorphous matter does *not* know it exists. Therefore they are not alive!"

"But what about the miracles in the paper?" persisted Hackett. "Or my hairbrush!"

"Some other time — some other time." Dr. Henry's voice had become queerly flat, toneless. He looked tired and worn after his speech. He smiled wanly at his visitor's alarm. "It's nothing. I'm not in the best of health. The incident of the hairbrush—interrupting you in the act of smoothing your hair—should remind you that you have an engagement for the evening, perhaps with a young lady?"

Hackett grinned and flushed.

"That's right! But Dr. Henry, I'd like to hear the rest of it."

"Come in tomorrow evening, then," nodded the old doctor, obviously pleased. As Hackett left the room, he saw the tired eyes close as Dr. Henry leaned back in his chair. Obviously, thought the younger man, the old chap was on his last legs. He felt vaguely uneasy about him, but consoled himself that he would find out more about him the next evening. He spent the night listlessly, thoughtful.

THE next evening found Hackett eagerly climbing the stairs that led to Dr. Henry's second-story workshop. When he was finally seated, Hackett noticed that the old doctor was highly gratified that he had come. Then he asked the question that had been mulling in his head all day.

"Dr. Henry, what does a person lose when he loses his life?"

"Ah, you've been thinking about it!" the old physician chuckled. Then he became serious. His eyes became filled with the same gleaming light they had shone with the evening before.

"You've struck the nail on the head. What is that strange difference between a living body and one that has just died? They are chemically and physically alike, yet the one moves and breathes and is alive, while the other is inert and dead.

"It is not sufficient to say that the heart has stopped beating and the

blood ceased circulating, for they are simply manifestations of life, not life itself. What has passed out of the living body and made it a corpse? Well —I don't know either!"

Lee Hackett stared. "B-But I thought—"

"No, I don't know that ultimate secret," continued Dr. Henry. "But I have come closer, I believe, than any other person in the world. I have called it 'consciousness', and that, I maintain, is its true nature. But it would take me another lifetime, perhaps, to prove—"

He broke off then, as though he had said too much, and began again. "The life-energy I produce is stored in that battery. It is a strange sort of battery. It has plates of raw, colloidal leather instead of metal. Its solution is a saline liquid closely approaching the composition of blood. The leads that go through the protecting hose are of catgut. The convex mirror is of highly polished bone!"

His haggard face became lined with sudden bitterness. "Twenty years ago I was a respected, rising physician and biologist. Then I was hounded from the profession for certain unorthodox theories about life. I had money enough, but barely enough, to retire here and pursue my researches free from their criticism and hindrance. Here a certain measure of success has come to me.

"I have proved that the life-force is a separate, distinct energy not to be confused with life itself. In plain words, the living organism is a vehicle for a mysterious energy which is different from electricity, gravitation or any other known energy. Just as electricity can be stored chemically and transmitted along metallic wires, this life-energy can be stored chemically by materials duplicating those of life, and can be transmitted along catgut wires. Finally, it can be radiated as a beam, like heat or radio waves."

The old doctor shuffled to the window and put his hand on the bone mirror at the end of the battery.

"I call this my life-battery, for it contains life! The pure essence of life, as a glass holds water. It is a very powerful energy in the concentrations I've succeeded in storing. When I projected it across the courtyard and made it impinge on your hairbrush, you saw the result. The hairbrush became *alive!* That is, it simply became *conscious* of its existtence.

"Promptly, it began to display the symptoms of life as we know it. It moved. When you dropped it, its wooden handle began to coalesce with the wood of the dresser-top—it was 'eating'! However, it carried on only the most primitive of such life operations, and only while my beam touched it. When it was withdrawn, it again became dead and inanimate. It was not the ideal receptacle for life-energy, as is the organic body.

"So it was with the newspapers 'miracles'. I wanted to see just how powerful the life-energy was that I had stored in my life-battery. At the same time it amused me to think how people react, seeing certain traditionally inanimate things coming to a horrible life. The mummy you read about, dry and old, shook itself to shreds when it became 'alive' and obeyed the impulse to move and get out of its prison.

"The stone lion, though of adamant rock, was able to utilize the same subtle forces that motivate living flesh—sun energy—to rear up. I actually saw it change shape. Perhaps the life-energy suffusing it is able to make the rigid molecules of stone become semi-fluidic. I don't know. Many of these things are still a mystery to me.

"And so with the others. In each case the pure, unadulterated life-energy poured into inanimate matter, gave it consciousness, and made it come to 'life'. They did not think, of course. They merely exhibited the most rudimentary of life's phenomena."

Hackett, listened absorbedly, suddenly looked up.

"But where does this life-energy come from in the first place? How do you *generate* it?"

"Shrewd young man," murmured

the old doctor. He shook his head slowly. "That is something I do not care to explain!" A strange expression of fear lurked in Henry's eyes as he finished.

Lee Hackett suddenly noticed a singular thing. The twittering of the little animals in the room across the hall was absent. Yesterday he had heard it continuously.

Dr. Henry stepped before his visitor. His eyes gleamed strangely.

"Let me confess now that I have you here for a purpose," he said slowly. "I played my beam on your hairbrush last night to bring you to me. Somehow, having seen you many times, I felt you were the man I needed to help me in—"

A spasm of pain twisted the haggard face and Dr. Henry, clutching at his side, staggered back to a chair, aided by Hackett. The latter looked at him apprehensively.

The old doctor smiled weakly, but the pain in his eyes did not leave. "I am not well, as you can see," he said hoarsely. "In fact, my hours are numbered. I am old and worn-out and my heart is very weak. Yet I want to live! I want to carry on my researches and solve more of the mystery of life. I know so little of it even yet—less than the physicist knows of the mysterious atom."

His face suddenly glowed.

"And I think I *can* live longer—perhaps another lifetime! What I want you to do is to bathe my body from head to foot in the beam of life-energy. It will supplement my weakened life-force, give me new strength. If it can wake the dead stone, it must be able to restore a fading life!"

Hackett stared in petrified surprise.

"But are you sure of it? Have you tried it out on your guinea-pigs?"

The old doctor nodded.

"Yes, I've tried it. I've taken guinea-pigs at the point of death from disease or old-age, and restored them to vibrant life. What the life-beam can do for them, it can do for me! My boy, you must do this for the sake of science. The world will benefit greatly from it. And I must carry on my work, solve the mystery of—"

THE weak old eyes were wet with tears of pain and closed momentarily. The aged man breathed heavily. Hackett saw that the scientist was marked for death. His thoughts wavered. Should he help snatch this doomed man from the jaws of death? It seemed unholy. But then, would it be any different than the physician who administered his medicine at the last moment to save a life for future years?

Hackett squared his shoulders purposefully. "All right," he whispered grimly. "I'll do it!"

The old man directed Hackett to bring the life-battery to the other side of the room, and showed him how to manipulate the mirror for proper focus. Then he removed all his clothing, explaining that the cloth would absorb a certain amount of the energy uselessly. Bony and flat-chested, bluish veins standing out on his fleshless skin, the old man tottered to the couch next to the table on which the battery stood and stretched out full length.

Under Dr. Henry's instructions, Hackett fastened a stethoscope to his chest. It was attached to a pulse-meter on the table. The instrument registered his heart-beats in the swing of a needle motivated by a vibrating diaphragm.

"It should be enough in an hour," muttered Dr. Henry. "Perhaps I will need several treatments on different days. We shall see. All right, my boy. Turn it on and remember to keep the mirror about three feet over my body at all times."

Nervously, Hackett snapped on the switch of the life-battery. No visible or audible indication of the beam of life-energy came to him, but as he slowly moved the projecting mirror along, the flesh in its wake seemed to stir to new life. It turned pink.

Dr. Henry relaxed with a deep sigh, closing his eyes. His breathing became regular and a faint smile touched his pallid lips. It seemed to be doing him good.

"Dr. Henry!" Hackett called softly, wondering if he had gone to sleep.

(Continued on page 127)

SCIENCE Question BOX

THE MOST POWERFUL MAGNET

Editor, SCIENCE QUESTION BOX:

According to recent reports, scientists have perfected a powerful permanent magnet, one that will lift 1500 times its own weight. Can you supply me with some additional information regarding this invention?—J. A. Williamsport, Pa.

The magnet you speak about has been developed in the Research Laboratory of the General Electric Company, by W. E. McKibben.

This magnet weighs 1.85 grams. About half the size of a pencil eraser, it will lift a five-pound flatiron with ease. The new magnet is several times as strong as those previously made. The magnet is made of a material known as Alnico, an alloy of aluminum, nickel, cobalt and iron. It was first developed as a heat-resisting alloy which resisted scaling and deterioration at high temperatures. Alnico has been used in radios, motors, generators and other electrical equipment for some time, replacing electro-magnets which require current.

The new magnet employs the same alloy as previously used, but utilizes a steel sheath around the Alnico pellet to direct the magnetic flux against the keeper or object being attracted.—Ed.

THE FASTEST FISH

Editor, SCIENCE QUESTION BOX:

Recently, the newspaper in my city featured an article on fishing in which it claimed the tunny fish was the fastest in the sea. Knowing this department to be a sort of "Information, Please", for all varieties of questions, I wonder if you can tell me what is the fastest fish, and how fast it travels?—M. H., N. Y., N. Y.

The fastest fish in the world is undoubtedly the swordfish. It ekes out its existence mainly because of its great speed, for the swordfish obtains its food by rushing among shoals of smaller varieties of fish and spearing them through with its sword.

There is a case on record of a swordfish traveling at such great speed that when it plunged against a wooden vessel, its sword pierced through the copper sheathing, penetrated an inch of the under-sheathing, and then three-in. plank of hard wood. A fair beginning, you'll say—but wait!

The creature's sword next pierced through the twelve inches of white oak timber and a hard oak ceiling two and a half inches thick. Finally, the sword entered an oil cask and broke off, thus forming a convenient bung.

Altogether the fish had penetrated twenty inches of timber. Judging by the material of which its sword was composed, it was obvious that by no ordinary means could it have forced through copper sheathing and nearly two feet of wood. The fact of clean penetration clearly shows that the fish must have been traveling at not less than sixty m.p.h.

Tunny fish, incidentally, travel at the rate of forty m.p.h.

THREE KINDS OF SPACE

Editor, SCIENCE QUESTION BOX:

I've read so many science fiction stories in which authors speak of space-warps, space-curvatures, etc., that the properties of space are quite vague to me. Just what kind of space does the Universe possess?—L. O. S., Lanchester, England.

There are three possible kinds of space. First is parabolic space, which follows the Euclidean geometry and which explains the geometry of everyday life on Earth. In this world of Euclidean geometry there is no curvature or limit to space.

A second kind of space is spherical, whose geometry was developed by mathematicians of the 9th century, notably Reimann. In spherical space the plane of Euclidean geometry becomes the surface of a sphere of some definite radius. Infinitely long straight lines of Euclidean geometry become the great circles of the sphere in Reimann geometry. Since great circles intersect each other on a sphere there are no parallel lines in Reimann geometry of spherical space. Further, the sum of the interior angles of a triangle on a sphere is greater than two right angles.

Finally, there is a third kind of space known as hyperbolic space. In this space, straight lines are infinite in length and there are an infinite number of parallel lines for any given line. In hyperbolic space the sum of the three interior angles of a triangle are less than the sum of two right angles. And the area of a small circle in hyperbolic space exceeds the area of the corresponding Euclidean circle. The curvature of space for the hyperbolic case is a negative number.

So there you are. Here you have mathematician's definitions of space. Regarding the finding out of what kind of space actually exists in the Universe, that is strictly a physical problem, one for the relativists to battle out.—Ed. (Continued on page 126)

In this department the editors of STARTLING STORIES will endeavor to answer your questions on modern scientific facts. Please do not submit more than three questions in your letter. As many questions as possible will be answered here, but the editors cannot undertake any personal correspondence. Naturally, questions of general interest will be given the preference. Address your questions to SCIENCE QUESTION BOX, STARTLING STORIES, 22 West 48th Street, New York City.

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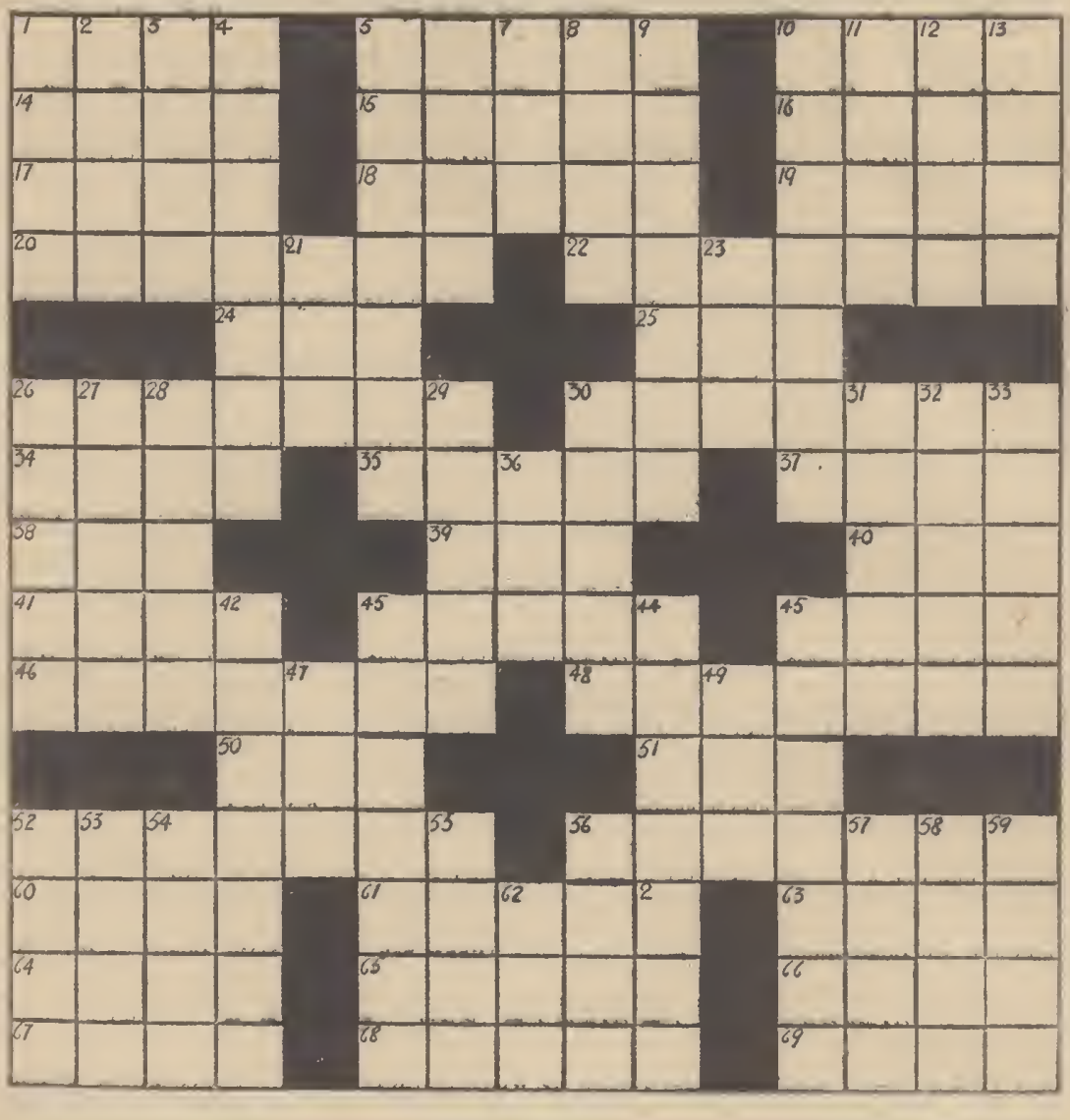

ACROSS

1—Dense nebulous covering which surrounds the nucleus of a comet.
5—This man could carry the world
10—Animal seized by another for food
14—Greek name for Mars
15—Moon of Saturn
16—Not thoroughly cooked
17—A filelike tool
18—Royal
19—Continent
20—Flatfishes
22—Tanned hide of an animal
24—To move quickly
25—Snare
26—Pertaining to the science of healing
30—The upper portion of a loin of beef
34—Most important metallic element
35—Science of correct and accurate thinking
37—Eagle
38—Negative prefix
39—Number of Saturn's satellites
40—Vehicle
41—Scent exuded by mammals
43—Hybrid between ass and horse
45—Loose earth
46—Earnest
48—Disembodied spirits
50—Radio network (abbr.)
51—Incalculable period of time
52—Vessels of interwoven twigs
56—Yellowness in the leaves of plants, caused by wet or cold weather
60—At the (contraction)
61—In an inclined manner, like Earth
63—Fibers twisted together
64—Carbon from the smoke of wood or coal
65—More infrequent
66—One of the ages of the world's history
67—Rulers (abbr.)
68—Composition in poetry or prose
69—Coin made of copper with 95% alloy of tin and zinc

DOWN

1—Fresh-water food-fish
2—In zoology, side of the body on which the mouth is placed
3—Elevated plateau
4—Drug compound of acetyl and salicylic acid
5—Gland situated above the kidney
6—Pieces of timber or metal used to bind two bodies together under tension
7—Record of the daily progress of a vessel
8—Pertaining to the lower extremity of the alimentary canal
9—Acid derived by decomposing a selenate with hydrogen sulfid
10—Childish speech
11—Skin eruption

12—One of the Great Lakes
13—Period in which Earth completes revolution around the Sun
21—Committee of United Chemists (abbr.)
23—Combining form with relation to air or gas
26—King of Crete
27—To wear away by geological processes
28—Donator
29—Plant of the water-lily family
30—Trigonometrical functions
31—Path described by heavenly body in its periodical revolution
32—To harden by use
33—Bird habitations
36—Protoplasm composed of gelatin or albumen in jellylike state
42—Vitamin disease
43—A gas used in scientific warfare
44—Images produced when rays of light are dispersed by refraction through a prism
45—Relating to the surface separating two contiguous liquids in the same container
47—Order of British Empire (abbr.)
49—Decay
52—Non-acid component of salt
53—Ultimate particle of matter
54—Bring from motion to rest
55—Celestial body
56—International League of Electrical Mechanics (abbr.)
57—Roar (arch.)
58—On
59—Conveyed to another place
62—Boy's name

The Solution is on Page 128—
If You MUST Look!

13

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REVIEW OF THE SCIENCE FICTION FAN PUBLICATIONS

AD ASTRA. 3156 Cambridge Avenue, Chicago, Ill. Edited by Mark Reinsberg. Associates, Erle Korshak, Richard Meyer, Henry Bott and W. Lawrence Hamling.

The newest of the science fiction fan magazines, and one of the best. This journal presents an all-star all-fan line-up, plus first-rate contribs by such luminaries as John W. Campbell, Jr., Edward Elmer Smith, Ph.D., and Hugo Gernsback. Articles are short, bright, and diversified, treating fantasy fiction's past, present and future. Lots of "inside info" here. Second issue looks promising, and announces new articles by such headliners as Clifford D. Simak and Jack Williamson. Editor handles his news with a new slant.

* * *

NEW WORLDS. 17 Burwash Road, Plumstead, London, S.E. 18. Edited by Ted Carnell. Ken G. Chapman is Assistant Editor. Associates, Maurice K. Hanson, Arthur C. Clarke, Frank Edward Arnold and Harold Kay.

"Science Fiction—1950," an article by John Russell Fearn, is the feature piece in the second issue of this new British fan gazette. Magazine is well on a par with the leading American pubs, and Harold Kay's controversial article, "Pro-Weinbaum," is not to be missed. Other important articles in this issue include "Futurist Fallacies," by Frank Edward Arnold. Magazine competently presented, carries a strong adult appeal.

* * *

SCIENTI-SNAPS. 2120 Pershing Boulevard, Dayton, Ohio. Edited by Walter E. Marconette.

"Fantasy Films of 1938," a chronological listing of 1938's scientifilms, compiled and edited by Richard Wilson, Jr., is the most attractive feature in the current issue of this month's number. Readers' letters good. Amateur yarns by prominent fantasy followers. Mag is neatly printed, presented invitingly. Would suggest more fan fact, minimum of fiction. Future issues to publish material by w.k. fans like Jack Speer, Sam Moskowitz, Forrest J. Ackerman, Harry Warner, Jr., and others.

* * *

D'JOURNAL. P. O. Box 260, Bloomington, Ill. Edited by Bob Tucker.

Fantasy fiction's first fun-fan folio, featuring fantastic foolery—back with a second issue! Comedy, satire and bright fun-poking at all the allied phases of science fiction. You'll like "Poor Pong's Almanac," a scientificomic calendar for the month. Other contribs on the scintillating side by James D. Tillman, Jr., Dale Hart, Morojo, C. C. Cunningham, et al.

* * *

SPACEWAYS. 311 Bryan Place, Hagerstown, Maryland. Edited by Harry Warner, Jr.

Amateur science fiction tales by leading fans. Some pretty good. Publication also reviews fellow fan mags, runs readers' letters, and commentary material on science fiction topics.

* * *

NEW FANDOM. 603 South 11th St., Newark, New Jersey. Edited by Sam Mos-

kowitz, William S. Sykora, Raymond Van Houten, Mario Racic and James V. Taurasi.

Latest number contains a variety of interesting articles on pertinent science fictional subjects. Contests, newsy departments, debates, and other attractive matter make up this large twenty-page issue. Lads on this book try hard.

* * *

THE FUTURIAN REVIEW. 280 St. John's Place, Brooklyn, N. Y. Edited by Frederik Pohl.

This is a fan mag in miniature, with minute articles on fans, features and fantasy. Current issue announces first number of the Futurian Magazine, to be published in June. Editor states it is "one of the most titanic fan publications ever contemplated. Contents to take up more than thirty pages, inside insert illustrations in color, a swell cover, material by leading writers, and many other superlative features." We're waiting.

* * *

FANTASY NEWS. 137-07 32nd Ave., Flushing, New York. Edited by James V. Taurasi.

Do you want to know what New York's leading fan club thinks of each issue of the professional science fiction magazines? Do you want to learn all the advance details on the forthcoming science fiction convention to be held at the World's Fair? Curious about the line-ups for future issues of the various mags? Then follow each issue of FANTASY-NEWS, and keep up with the s-f world. Chatter, candid comment, fan-mag reviews, and enthusiasm. Published weekly.

* * *

SCIENCE FICTION NEWS LETTER. 86-10 117th Street, Richmond Hill, N. Y. Edited by Richard Wilson, Jr.

Concise, compact news of miscellaneous fantasy items in each issue of the weekly one-page sheet. Winchellian notes on minor and major doings in this strange s-f world. This ought to be a daily.

* * *

TOO LATE FOR REVIEW: THE SCIENCE FICTION FAN, 2251 Welton Street, Denver, Colorado. Edited by Olon F. Wiggins; LE VOMBITEUR, 71 Carroll St., Springdale, Conn. Edited by Robert W. Lowndes.

. . FLIGHT OF THE FLAME FIEND . .

A Novelet of Weird Sacrifice

By CARL JACOBI

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A Novelet of the Walking Dead

By G. T. FLEMING-ROBERTS

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FORECAST FOR THE NEXT ISSUE

THE greatest science fiction novels of the year have been presented in the recent issues of STARTLING STORIES. No effort has been spared to bring you the most important novels of the day, by the most popular authors in America.

The fact that these stories have won instant acclaim from our thousands of followers is a splendid tribute to each one of you, the readers and supporters of STARTLING STORIES. For your letters of criticism and suggestions have helped to mold the very structure of this magazine.

In keeping with the star novels we have already published, in the next issue we are proud to present a scientifiction novel by Robert Moore Williams, THE BRIDGE TO EARTH. It's a powerful story destined to be remembered as one of the most fascinating fantasy novels of all time. The incredible story of the case of the vanishing Earthmen!

A mysterious blue flash of light is the grim vanguard that heralds the conquerors from beyond the stars. Then, one by one they disappear—tycoons of industry, leaders of science, and the man in the street. Gripped by the invisible coils of a fate unknown, they become—men who vanish!

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In addition to this novel, more short stories in the next issue of STARTLING STORIES by L. A. Eshbach, Will Garth, and others. And all our exclusive features, more THRILLS IN SCIENCE, a new SCIENTIFIC CROSSWORD PUZZLE, and the Life Story of Alfred Nobel, discoverer of dynamite, in THEY CHANGED THE WORLD. Streamlined scientifiction treats from cover to cover!

BEST FUN, FICTION AND FOTOS IN

MEET THE AUTHOR

•

SELF-PORTRAIT

By Manly Wade Wellman

Author of "Giants from Eternity," this Month's Book-length Novel

FOR centuries I've been prepared for science fictioneering, and if I do not succeed, it's my fault, not my ancestors.

Those ancestors came to Virginia almost 300 years ago, believing in dragons, unicorns, ogres, basilisks and magic empires full of gold. My grandfather wrote science fiction a good 60 years ago—one of his best had a secret empire in a fertile north polar valley, ruled by a romantic rascal who met a beautiful girl. I myself was born in West Africa, and heard as nursery tales the weird myths of the natives, together with rumors of dwarf and giant races, talking rabbits and elephant graveyards in the still unexplored jungle fastnesses. Maybe those rumors are true. . . .

Manly Wade Wellman

Coming to America at an early age, I was in Washington when important post-Wright airplane tests were made there; in Kansas when the bones of Mastodons were unearthed in the Eldorado Oil fields; in New York when Lindbergh took off for Paris. From the time I learned to read, I gulped down whole libraries of science fiction, from Tom Swift to Verne and H. G. Wells. Graduated from Columbia University's school of journalism, with every opportunity to become a second Pulitzer; but in the meantime I had begun to sell science fiction, and my predestined fate caught up with me. I have sold more than fifty science tales since, and hope to do ten times this many. I also hope to see science fiction attain the high position it now approaches; to see world peace; to see rocket flights and interplanetary alliances—all before I die. And I mean to live as long as I can jolly well manage.

A word about GIANTS FROM ETERNITY: the restored scientists in that story have all been my heroes from boyhood, and to me they are wonderfully real. As I brought them into the imaginary adventure, I could almost see their faces and hear their voices—experiences of that sort are the best part of writing science fiction. If they aren't real to the reader, it is because I cannot write well enough yet.

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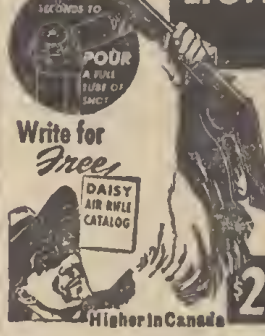

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SCIENCE QUESTION BOX

(Continued from page 119)

THE POSITION OF STARS

Editor, SCIENCE QUESTION BOX:

Do we ever see the actual position of any star?

Take for example a star whose light would take a year to reach our Earth and during that time that star has traveled 100,000 miles. Wouldn't that star be 100,000 miles away from where we think we see it?—F. G. M., Oakland, Cal.

Your point is very well taken. Stars are continually moving and naturally if it takes years for their light to reach us, they have altered their positions considerably in the interim. But, for most stars, this position is not apparent to us. The stars are so very far away that even their motion during years is insufficient to show any appreciable change in their position to us.

It is stated by astronomers, in fact, that there are less than 200 stars that change their positions in the heavens due to the their motion by one second of arc per year and this motion is equivalent to that of the thickness of a thread seen at five hundred feet. The greatest proper motion recorded for a star is for V 243 which moves nine seconds of arc per year.

Consider, for instance, a star at the distance of Alpha Centauri, which is one of the nearest stars to the Solar System. Alpha Centauri is 25,000,000,000,000 miles away from us. Let us assume that it has a proper motion as fast as 10 miles a second. Then in four years it would have moved 1,340,000,000 miles.

But this movement, at Alpha Centauri's great distance from us, is equivalent to the motion of only one inch seen at a distance of 1900 feet. The star for all practical purposes is therefore "fixed".—Ed.

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BEST FUN, FICTION AND FOTOS IN

THE LIFE BATTERY

(Continued from page 118)

Apparently he had, for he made no answer. The youth shrugged and continued to ply the mirror slowly along, from head to toe and back again. He watched the pulse-meter on the table and saw that the old doctor's heartbeat was slowly going down from its abnormal high of over a hundred.

Fifteen minutes later Hackett became alarmed. The pulse-meter kept going down! It reached the normal of seventy and lowered still more! When it dropped to below sixty, Hackett sensed that something was wrong. He snapped off the life-battery, put the mirror aside, and tried to waken the old man. He shook him gently and then vigorously, panic-stricken. The pulse-meter read fifty.

At last the eyelids fluttered and opened half way. Dr. Henry looked up wearily.

"Let me sleep," he murmured. "Sleep—"

"Dr. Henry!" cried Hackett, shaking him frenziedly. "You must wake up! Your pulse is down to forty-five now. Dr. Henry!"

Again the eyes opened.

"No—cannot wake up! I will go to sleep—forever. I deceived you—did not tell you that some of the guinea-pigs I treated—did not recover. But don't blame yourself. I was willing to take the chance. I have lost. Good-by, boy—"

SHOCKED to the core of his being Hackett saw the pulse-meter swing down to forty and then dive downward. The needle hit its bottom stay with a sharp click. Dr. Henry gave one convulsive shudder and then his body lay still. His wasted, tortured body had found peace at last.

How long Hackett stood there, staring in dazed bewilderment, he never knew. Nor did he know by what process of reasoning or madness he came to do what he then did. He only knew that he had the bone mirror in his hand again and was playing it up and down over the corpse. The life-beam

(Concluded on page 128)

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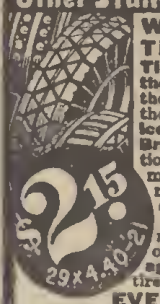

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30x5.00-20	2.85	1.25
6.25-17	2.90	1.35
28x5.25-18	2.90	1.35
29x5.25-19	2.95	1.35
30x5.25-20	2.95	1.35
31x5.25-21	3.25	1.35
6.50-17	3.35	1.40
28x5.50-18	3.35	1.40
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31x6.00-19	3.40	1.45
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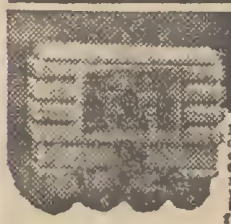

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(Concluded from page 127)

had brought other things — dead things—to life. Why not Dr. Henry's dead body? That thought swung pendulumlike in his bewildered, desperate mind.

"Dr. Henry! Thank God—"

Thus he cried out as the first signs of life again came to the corpse. But he choked on the words and staggered back. What had happened?

The figure that slowly sat up and opened its eyes was not Dr. Henry! It was some monster, some alien life inhabiting the body that had been Dr. Henry's! The face was idiotic, drooling. The body writhed horribly.

Suddenly it sprang up, twisting madly around. A horrible travesty of human life, it began sniffing as though looking for food. Its mad eyes caught the figure of Hackett. With a horrifying, gurgling cry it leaped at him—

And hour later Lee Hackett reeled out of the old house, sick to the bottom of his soul. Back there in the dark laboratory he had left a shapeless broken thing on the floor. A twice-dead thing that had once been the body of Dr. Henry. Beside him, smashed to splinters, was the life-battery.

Lee Hackett realized that Dr. Henry had been wrong in one thing. Life was not just consciousness — it was also soul.

SOLUTION TO CROSSWORD PUZZLE ON PAGE 120

C	O	M	A		A	T	L	A	S		P	R	E	Y
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R	A	S	P		R	E	G	A	L		A	S	I	A
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E	M	P	S		D	R	A	M	A		C	E	N	T

BEST FUN, FICTION AND FOTOS IN

THRILLS IN SCIENCE

(Concluded from page 112)

of the most dramatic trips in the history of American transportation. It was a journey destined to be as memorable as the run of James Watt's first steam engine.

George Westinghouse was one of the four passengers on the train. His heart was pumping blood with savage intensity; it was almost as if it were being driven by the very pistons of the locomotive.

Suddenly the engineer of the train cried out in dismay. A few hundred feet ahead of him he saw a drayman blunder upon the tracks. The drayman seemed doomed. Desperately, he tried to get his horses to pull his wagon out of the path of the onrushing train. But it seemed hopeless.

It was now or never for the frantic engineer. Westinghouse's brakes would have to go into action, even if this wasn't exactly the way the first test had been planned. The engineer reached for the brake valve, wrenched with all his strength. There was a sudden sharp hissing as the air jets were opened—then a jolt and grating that catapulted the passengers from their seats, sent them sliding into the aisles.

But the engineer's quick action had not been in vain. The train came to rest just four feet in front of the stalled driver and wagon. For the first time in the history of transportation, compressed air had been used to stop a train. Rushing from the main tank into the lines and cylinders, it had thrust out the brake pistons with irresistible force.

And to young George Westinghouse, the founder of the famous Westinghouse laboratories of today, the success of the air brake represented the realization of his greatest ambition.

He, too, had been driven by an irresistible force!

•

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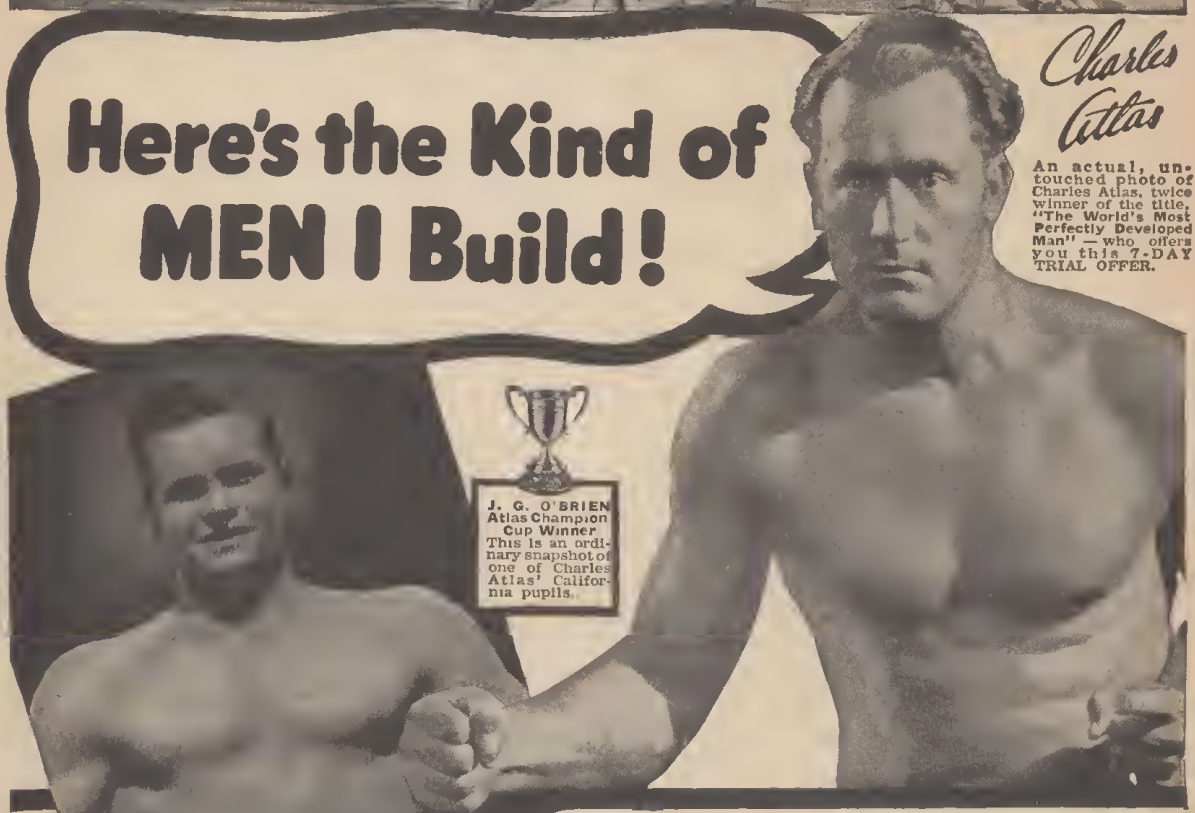
COMING! IN OUR NEXT ISSUE

Here's the Kind of MEN I Build!



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